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METRO WAYS TO UNDERSTANDING

VOLUME I

A PLAN FOR THE VOLUNTARY ELIMINATION OF
RACIAL AND ETHNIC ISOLATION IN THE SCHOOLS
OF THE BOSTON METROPOLITAN AREA

THE METROPOLITAN PLANNING PROJECT

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METRO WAYS TO UNDERSTANDING

VOLUME I

A Plan for the Voluntary Elimination of Racial and Ethnic Isolation in the Schools of The Boston Metropolitan Area

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DEDICATION

TO THE CHILDREN OF THE BOSTON METROPOLITAN AREA

ZU ALLE KINDER FUN BOSTON UND FUN DIE SHETLACH ARUM

DEDICATORIA: A LOS NIÑOS DEL ÁREA METROPOLITANA DE BOSTON

DEDICA: AI BAMBINI DELL'AREA METROPOLITANA DI BOSTON

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UMSCOT MIDGAWAGEG DONDELKY BOSTON

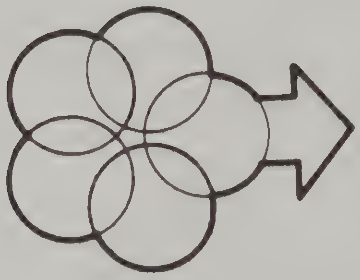
DEDICATÓRIA: ÀS CRIANÇAS DA ÁREA METROPOLITANA DE BOSTON

ΑΦΙΕΡΩΣΙΣ: ΕΙΣ ΤΑ ΠΑΙΔΙΑ ΤΗΣ ΜΕΙΖΟΝΟΣ ΒΟΣΤΩΝΗΣ

TOIRBHIRT: DO PHÁISTÍ CHATHAIR BOSTON

獻給
波士頓全地區的兒童

THE JOINING AND INTERACTING OF ALL RACES POINTING TO A COMMON GOAL - BETTER EDUCATION FOR ALL CHILDREN



ABSTRACT

The Metropolitan Planning Project is a collaborative of 17 school districts, and approved by 56 school districts within the Boston metropolitan area. Its mandate was to develop a Ten Year Plan for the phased elimination of racial and ethnic isolation in the schools of the area through school districts collaborating on a voluntary basis. The Project has been funded by the U.S. Office of Education under the Emergency School Aid Act of 1972.

METRO WAYS TO UNDERSTANDING: A Plan for the Voluntary Elimination of Racial and Ethnic Isolation in the Schools of the Boston Metropolitan Area is the phased Ten Year Plan which is a result of the process that the Metropolitan Planning Project has undergone during this year of planning. The Project has worked to achieve effective community participation in an effort to design quality learning environment programs for students. As a result of a city and suburban exchange of ideas, the Metropolitan Planning Project has helped to promote the development of over 78 proposals in 32 cities and towns for the design of new innovative learning environments. With a $300,000 allocation for pilot programming, 14 pilot projects were funded to test MPP objectives. The Projects included students from pre-kindergarten through high school age and focused on such topics as business and economics, American History, art, ecology, energy, diverse life styles and curriculum and materials relating to Afro-American, Hispanic, Native American, and Asian-American cultures.

The Project has also compiled extensive data on the educational, demographic, housing, fiscal, socio-economic, land use and ethnic and racial characteristics of the 78 towns and cities in the greater Boston standard metropolitan statistical area (SMSA). This information was developed as a needs analysis and resource inventory and has been utilized in the development of the recommended educational programs. It provides the basis for program implementation. The Ten Year Plan, METRO WAYS TO UNDERSTANDING, is aimed at promoting voluntary collaboration between urban and suburban school districts and includes the involvement of students, parents, teachers, school principals, superintendents, community organizations and others concerned with education.

During the Spring of 1975, the Metropolitan Planning Project will pilot some of the policy recommendations developed through this participatory planning process. These recommendations include:

METROPATHWAYS - Quality innovative educational programs which will be accessible to secondary school students of different socio-economic, racial, and ethnic backgrounds within the metropolitan area by utilizing mass transit routes.

METROPAIRWAYS - Parents and school personnel from pairs or triads of city and suburban districts will meet to formulate educational programs of equal benefit to the students. Learning centers will be developed in schools and on third sites and each will serve as a supplement to the educational programs of each individual school.

METRO ETHNIC HERITAGE RESOURCE CENTERS - These centers will be coordinated within METROCENTER and will promote the study, compilation, production and distribution of materials and information related to minorities and ethnic groups of the SMSA. They will also be an action program for the development of other resource centers in the metropolitan area.

METROCENTER FOR COMMUNICATIONS, COUNSELLING, AND RESOURCE DEVELOPMENT - This center will coordinate the metropolitan educational programs and serve as an information and resource "bank" for students, parents, community groups and educators throughout the metropolitan area who wish to be involved in urban-suburban educational programs and staff development programs aimed at eliminating racial and ethnic isolation of students.

FOREWORD

For the past year, citizens, students, teachers, superintendents, and school committee members, drawn from 56 communities in the Greater Boston area, have been working together in a unique and historically important undertaking. These citizens and educators, as well as institutions, in Greater Boston have been searching and planning for voluntary ways to bring children together from cities and suburbs for positive educational experiences which will expand their personal horizons and, at the same time, will lead to better understanding among children of diverse racial, ethnic, and social backgrounds.

This is a huge undertaking and one that, in my opinion, must be tried if the social fabric of this great nation is not to be torn apart. Some people feel that voluntary programs, even though interesting and sound, will not work. I reject this thesis; not because I am an incurable optimist, but because I am deeply convinced that the alternative to not giving the Metropolitan Planning Project our full support will be to doom American and its citizens to living in an apartheid society, with each racial, ethnic, and social glass group huddling together, afraid of venturing beyond its self-imposed borders.

The Greater Boston SMSA has led the way in this nation to regionally planned, voluntary, sound educational experiences for children from the cities and the suburbs. Numerous collaboratives such as EdCo, METCO, and EDC have already demonstrated the success of such endeavors. The newly formed Special Commission on Unequal Educational Opportunity is a further commitment of our state government's interest. If city-suburban collaboration can work, Greater Boston is the logical area of our country to demonstrate its significant possibilities.

To the Metropolitan Planning Project staff, particularly Dr. Forbes Bottomly, its first Director, and Dr. Marcia Marker Feld, its current Director, and the members of the Governing Board and the Advisory Committee who have all labored so hard, I offer my profound thanks for their efforts on behalf of a cause that must succeed if the next generation of children is to grow up in an environment in which human differences are prized and shared.

Robert I. Sperber
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and
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1973-74

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PREFACE

METRO WAYS TO UNDERSTANDING is the beginning of a ten-year process. It is a plan containing policy and program recommendations. It is also a participatory planning process which will lead to further development of these recommendations. Its mandate is to eliminate racial and ethnic isloation in the schools of the Boston metropolitan area. It is intended to continue an ever broadening dialogue to generate voluntary metropolitan educational programs to accomplish the plan's goal.

This plan had its inception in a Massachusetts legislative appropriation in 1971 to the State Board of Education to study metropolitan trends in education and their effect on quality integrated education. The Board, through its then Acting Commissioner, formed a broad range Metropolitan Planning Commission. The Commission, together with the State Department of Education's Greater Boston Regional Center, developed a proposal submitted by seventeen school districts in the metropolitan area and approved by 39 others, to the United States Office of Education under the Emergency School Aid Act of 1972 (ESAA). The Metropolitan Planning Project (MPP) proposal was the only metropolitan study funded. These districts proposed a study of the feasibility of a formula plan, as defined by the ESAA and, if found to be infeasible, to formulate an alternative plan to meet the mandate. This document represents the completion of the requirements of that grant. It also represents one further step in the planning process. The programs and the implementation procedures recommended are the result of a dynamic and continuing process. They signify a commitment to action and an openness to dialogue.

The educational program and governance recommendations presented in this document are the preliminary results of an increasingly wide range of discussions and meetings, presentations and proposals. In the process of assessing the feasibility of a formula plan, the staff and the cooperating school districts, parents, teachers, and administrators, students, community groups and legislators have developed alternative metropolitan education programs which fulfill the purposes of MPP. The Project will next move beyond the initial planning goal to a programmatic and operational stage. The Ten Year Plan is, therefore, a working paper for a changing metropolitan area, not a bluprint. It includes a process to develop a consensus which will meet the ten year goal. The Project's intention is to break down artificial barriers as they exist today and transcend the social and political barriers as they may occur in the future. Its mandate is the framework for a consensus, and the variety of people and institutions within the Boston region are the resources for a pluralistic response. Between the presentation of the Ten Year Plan and June 1975, the recommended metropolitan education programs will be discussed and debated throughout the Boston metropolitan area and, then, hopefully, adopted by School Committees and community groups as that debate continues.

Some of the innovative education projects, initially tested during the planning year, have been incorporated under the major program recommendations.

One such program recommendation, METROPATHWAYS, is a major thrust which will begin operation in the Spring semester, 1975. In June 1975, an addendum of this document, will be completed and submitted to the U. S. Office of Education. Even then, the planning process should not end. That process will and must continue as a dialogue between parents, legislators, teachers, community groups and students. Such an exchange illustrates the interrelationship which is at the heart of the collective decision making process underlying this plan.

Marcia Marker Feld
Executive Director
Boston, October 1974

ACKNOWLEDGEMENTS

The Metropolitan Planning Project would like to thank the many persons and organizations in the Boston metropolitan area who have contributed their time and effort to this project.

TABLE OF CONTENTS

Page

Abstract i

Foreward iii

Metropolitan Planning Project Governing Board v

Metropolitan Planning Project Advisory Committee vi

Metropolitan Planning Project Staff vii

Preface viii

Acknowledgements xv

Part One THE CONTEXT: THE BOSTON METROPOLITAN AREA

CHAPTER

I PATTERNS

Introduction 5
The Boston Metropolitan Area 6

II THE POLITICAL SETTING

Introduction 31
The Metropolitan Planning Project Proposal . 37

III THE CONSTITUENTS AND PARTICIPATION

Introduction 47
Expectations of the Metropolitan Planning Project by Various Groups 47
Expectations of the Metropolitan Planning Project Shared by Groups 50
Summary 51

IV THE MANDATE

Introduction 55
The Mandate of the Metropolitan Planning Project 55
Summary 58

Part Two THE FRAMEWORK FOR ACTION Page

CHAPTER

V THE PLANNING PROCESS

Introduction 63
CONCEPTUAL MODEL I: Support Research: Comprehensive Urban Planning Techniques Applied to the Public Education System
  Introduction 83
  Objective A 84
  Objective B 91
  Objective C 99
  Objectives D and E 102
  Objective F 104
  Summary 106
CONCEPTUAL MODEL II: Community Participation, Public Information and Participatory Planning
  Introduction 108
  Objectives of Community Participation . . . 108
  Phase I Overview 110
  Phase II Overview 111
  Strategies and Operation 112
  Objectives of Public Information 118
  Design of a Staff Development Plan 121
CONCEPTUAL MODEL III: Design of Learning Environments and Incentive Programming
  Introduction 127
  Process 127
  Planning Information 143

VI ISSUE IDENTIFICATION

Introduction 149
METROPOLITAN SOLUTIONS TO URBAN EDUCATION PROBLEMS by William T. Lowe 153
SCHOOL FINANCE TRENDS IN MASSACHUSETTS by Catherine Minicucci 165
PUPIL TRANSPORTATION AND THE ELIMINATION OF RACIAL ISOLATION IN EDUCATION IN METROPOLITAN BOSTON by Robert Hayden 179
TRANSPORTATION IN THE GREATER BOSTON AREA by James P. Brennan 193
HOUSING AND EDUCATION: THEIR RELATION TO THE ELIMINATION OF RACIAL AND ETHNIC ISOLATION AMONG SCHOOL AGE CHILDREN IN THE BOSTON METROPOLITAN AREA by Thomas E. Nutt and Bonnie R. Powell 209

Part Three OPTIONS Page

CHAPTER

VII THE FORMULA PLAN

Introduction 235
Criteria of Feasibility 236
Formula Plan Definition 238
Data Constraints 239
Formula Application: 1972-73 and 1982-83 . . 240
Technical Feasibility Evaluation 266
Educational Quality Evaluation 272
Summary 279

VIII THE ALTERNATIVE PLAN:
METROPOLITAN EDUCATION PROGRAMS
PROGRAM RECOMMENDATIONS

Introduction 281
Program Recommendations 285
METROPATHWAYS: A Program for Secondary School Students 287
  Introduction 287
  METROPATHWAYS Development 287
  Potential Curriculum Options 289
  Model Scheduling Option 306
  Suggested METROPATHWAYS Transportation Modules 308
  Implications for Communities 315
METROPAIRWAYS: A Program for Elementary and Junior High School Students 329
  Introduction 329
  Program Concept 329
  METROPAIRWAYS: A Process 331
  Potential Program Sequence 332
  Potential Curriculum Options 333
  Potential METROPAIRWAYS Collaboratives . . . 335
METRO ETHNIC HERITAGE RESOURCE CENTERS: A Program for all Students
  Introduction 341
  Potential Curriculum Options 342
  Program Centers 344
Summary: Program Recommendations - METROPATHWAYS, METROPAIRWAYS, AND METRO ETHNIC HERITAGE RESOURCE CENTER 346

TABLE OF CONTENTS -- continued/4

Part Three OPTIONS -- continued Page

IX THE ALTERNATIVE PLAN:
METROPOLITAN EDUCATION PROGRAMS
ADMINISTRATIVE RECOMMENDATIONS

Introduction 349
Staffing Patterns 349
Programmatic Components 351
Steps for the Development of METROCENTER FOR COMMUNICATIONS, COUNSELLING, AND RESOURCE DEVELOPMENT 352
Organizational Structure of METROCENTER 356
Second Year Operation of METROCENTER 356

X THE ALTERNATIVE PLAN
METROPOLITAN EDUCATION PROGRAMS
GOVERNANCE RECOMMENDATIONS

Introduction 361
Current Options in Educational Governance in the Commonwealth of Massachusetts 362
MPP Governance Recommendations 368

ABSTRACT OF VOLUMES 390

LIST OF TABLES

CHAPTER I

Page

I - 1 PUBLIC SCHOOL ENROLLMENT BY SCHOOL DISTRICT SIZE in the Boston SMSA: 1972-73 8

CHAPTER V

V - 1 TYPOLOGY OF DATA GATHERING NETWORK: OBJECTIVE A . . 86

V - 2 ANALYSIS OF PROPOSALS SUBMITTED Through the Design of Learning Environments Component of the Metropolitan Planning Project 144

V - 3 AREAS OF CURRICULUM CONCENTRATION In Proposals Submitted to the Design of Learning Environments Component of the Metropolitan Planning Project 145

V - 4 MUNICIPALITIES INVOLVED IN DESIGN of Learning Environments Proposals 146

CHAPTER VII

VII - 1 CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1972-73 242

VII - 2 SMSA SUMMARY OF THE TRANSFERS NECESSARY TO MEET ESAA FORMULA With All Non-white Students Bussed From Boston, and All White Students To Be Bussed To Boston: 1972-73 247

VII - 3 NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1972-73 248

VII - 4 SMSA SUMMARY OF THE TRANSFERS NECESSARY TO MEET ESAA FORMULA WITH ALL NON-WHITE Students Bussed From Boston, and All White Students To Be Bussed To Boston: 1972-73 253

VII - 5 CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1982-83 254

VII - 6 SMSA SUMMARY OF TOTAL CHANGES IN ENROLLMENT NECESSARY TO MEET ESAA FORMULA With All Non-white Group Students Bussed From Boston and All White Students To Be Bussed To Boston: 1982-83 259

VII - 7 NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1982-83 260

CHAPTER VII continued Page

VII - 8 SMSA SUMMARY OF THE TRANSFERS NECESSARY TO MEET ESAA FORMULA WITH ALL NON-WHITE Students Bussed From Boston, and All White Students To Be Bussed to Boston: 1982-83 265
VII - 9 AVERAGE AUTOMOBILE TRAVEL TIME IN MINUTES BETWEEN SCHOOL DISTRICTS and Boston Redevelopment Authority (BRA) Planning Districts in Boston SMSA: 1963 267
VII - 10 NUMBER OF MINORITY STUDENTS NECESSARY TO MEET THE ESAA FORMULA BY CLASS SIZE 274

CHAPTER VIII

VIII - 1 SUGGESTED METROPATHWAYS MODULES
MODULE I: Orange Line/Massachusetts Avenue
MODULE II: Boston and Maine Railroad
MODULE III: Red Line
MODULE IV: Blue Line
MODULE V: Green Line 310

CHAPTER X

X - 1 POTENTIAL GROUPINGS OF SCHOOL DISTRICTS FOR VOLUNTARY COLLABORATION Leading to the Elimination of Racial and Ethnic Isolation Among School Age Children in the Boston Metropolitan Area 377

LIST OF MAPS

CHAPTER I Follows Page

1. RACE: Communities with a non-white population of 3% or more 8
2. HISPANIC POPULATION: Communities with a Spanish language population of more than 1.75% 8
3. INCOME: Communities with a median family income of below $10,000 8
4. HOUSING: Communities where less than 34% of housing is owner occupied 8
5. OCCUPATION: Communities where less than 25% of the employed persons are working in a professional or managerial capacity 8
6. EDUCATION: Communities where less than 60% of the population 25 years and older has an education of 4 years of high school or more 8
7. TAX BASE: Communities whose equalized valuation per school child is below $20,000 (1973) 8
8. SCHOOL TAXES: Communities where 35% or less of the municipal tax dollar was spent for schooling (1973) 8
9. PUBLIC SCHOOL ENROLLMENT BY RACE: Communities with a non-white public school enrollment of more than 9% for 1972-73 8

CHAPTER II

1. METROPOLITAN PLANNING PROJECT STUDY AREA 38

CHAPTER VIII

1. POTENTIAL METROPATHWAY MODULE 1 ORANGE LINE/MASS. AVE . 316
2. POTENTIAL METROPATHWAY MODULE 2 BOSTON & MAINE RAILROAD. 316
3. POTENTIAL METROPATHWAY MODULE 3 RED LINE 316
4. POTENTIAL METROPATHWAY MODULE 4 BLUE LINE 316
5. POTENTIAL METROPATHWAY MODULE 5 GREEN LINE 316
6. POTENTIAL METROPAIRWAY SCHOOL DISTRICTS 337

CHAPTER X

1. RECOMMENDATION FOR POTENTIAL SCHOOL DISTRICT COLLABORATION No. 1 377
2. RECOMMENDATION FOR POTENTIAL SCHOOL DISTRICT COLLABORATION No. 2 377
3. RECOMMENDATION FOR POTENTIAL SCHOOL DISTRICT COLLABORATION No. 3 377
4. RECOMMENDATION FOR POTENTIAL SCHOOL DISTRICT COLLABORATION No. 4 377
5. RECOMMENDATION FOR POTENTIAL SCHOOL DISTRICT COLLABORATION No. 5 377

DIAGRAMS

CHAPTER V Page

V - I SCHEMATIC DIAGRAM OF THE CONCEPTUAL FRAMEWORK Of the MPP Planning Process

CONCEPTUAL MODEL I: SUPPORT RESEARCH 64

CONCEPTUAL MODEL II: COMMUNITY PARTICIPATION AND PUBLIC INFORMATION . . 70

CONCEPTUAL MODEL III: DESIGN OF LEARNING ENVIRONMENTS 74

V - II METROPOLITAN PLANNING PROJECT ORGANIZATION CHART . . . 79

V - III PRELIMINARY INFORMATION MATRIX FOR 1973-74 TO 1974-75 97

CHAPTER VIII

VIII - I FLOW CHART Formula Plan Evaluation 283

VIII - II FLOW CHART Alternative Plan Evaluation 284

CHAPTER IX

IX - I ORGANIZATION CHART FOR THE METROPOLITAN PLANNING PROJECT For the First Operational Year 357

IX - II ORGANIZATION CHART OF THE METROPOLITAN EDUCATIONAL PROGRAM BOARD 358

EXHIBITS

CHAPTER V

Page

V - 1 SUGGESTED PROCESS FOR BIDS DESIGN OF LEARNING ENVIRONMENTS 128
V - 2 DESIGN OF LEARNING ENVIRONMENTS DECISION MATRIX 131
V - 3 APPROVED DESIGN OF LEARNING ENVIRONMENTS PROJECTS 134
V - 4 DESIGN OF LEARNING ENVIRONMENTS GUIDELINES FOR WRITING FINAL REPORTS 139

CHAPTER VIII

VIII - 1 TRANSPORTATION LOGISTICS SERVING THE ANTICIPATED METROPATHWAYS SCHOOL DISTRICTS IN MODULE V . . . 327

VIII - 2 RUN TIME AND STOPS ON THE RIVERSIDE MBTA LINE (GREEN LINE D) 328

CHAPTER X

X - 1 DRAFT LEGISLATION: AN ACT PROVIDING FOR THE ESTABLISHMENT OF VOLUNTARY METROPOLITAN EDUCATIONAL PROGRAMS 371

LISTS

CHAPTER II Page

II - One SCHOOL DISTRICTS IN THE BOSTON STANDARD METROPOLITAN STATISTICAL AREA 38

CHAPTER V

V - One METROPOLITAN PLANNING PROJECT SUBURBAN STEERING COMMITTEE MEMBERS AND THEIR TOWNS 113

V - Two METROPOLITAN PLANNING PROJECT BOSTON STEERING COMMITTEE MEMBERS 114

CHAPTER VIII

VIII - One POTENTIAL METROPAIRWAYS SCHOOL DISTRICTS 336

Part One

THE CONTEXT:
THE BOSTON METROPOLITAN AREA

CHAPTER I PATTERNS

CHAPTER I

PATTERNS

Introduction

The Metropolitan Planning Project is mandated to develop a metropolitan approach to eliminate ethnic and racial student isolation in the schools of the Boston area. This chapter will discuss the context in which this plan has been produced and outline the social and demographic framework in which planning must continue. It will summarize the area's history of moving toward voluntary metropolitan plans. Finally, it will present an overview of the constituencies who have a direct interest in metropolitan planning as expressed by them in this first year of planning.

The borders of the Boston region, both external and internal, are ambiguous and changing. The region is diverse enough to offer the full range of metropolitan living, yet encapsulated so as to isolate and fragment each group into a small minority. A more specific background to these themes illustrates both the difficulty of defining cultural isolation in the Boston area and the need to develop programs to transcend that isolation.

The planning processes which developed the MPP recommended programs illustrate the complex and lengthy history of metropolitanism and desegregation in the Boston area. That history has included government, education, and social planning, and has involved the legislative, judicial and executive branches of local, state and federal governments. A major industry in the Boston area is government; at the same time, a large part of the population advocates autonomy in governance for each community.

Both the physical and cultural parameters of the Boston area highlight the dynamic relationship among the groups within its borders. Social or economic, allied or contending, unified or disparate, such groups emerge and diffuse as the issues of metropolitanism or desegregation as seen by different actors at different times. Each group is characterized by a slightly different notion of voluntary action and quality education; each group responds to slightly different leadership styles; and each group has a different history of former victories or defeats. This chapter outlines those groups with whom the Metropolitan Planning Project has been in contact.

Such a view of this metropolitan area may present other metropolitan planners with a picture which seems at once typical and highly unique. Boston is an old city with all of the problems and charm of three centuries of growth. Yet, Boston has also been renewed. It has been a laboratory for its universities, a testing ground for its minorities, and a means of mobility for its citizenry. There is a strong sense, however, that many things remain unfinished. In this metropolitan area, planning requires as much dialogue as data, as much informality as information. As other Volumes of this report attest, the data are there and provides the resources for such a dialogue. As this chapter shows, the resources have a market and a tradition of use.

The Boston Metropolitan Area

The geography and social demography of the Boston region is extremely diverse and fragmented. The region's history and culture is broad and rich. In the physical growth of the area there have been significant common elements, in spite of a general pattern of diversity and geographic isolation. Such patterns yield a sense of metropolitan growth which is alternately staged and steady, erratic and unpredictable, or predictable within very sharply constrained limits. Arguments for or against a metropolitan understanding of Boston are based equally on statistical and descriptive information, and each is useful for different forms of regional program development.

Its central city is a metropolitan center, state capital, and a center of federal regional districts. This political-economic uniqueness has affected the way Boston has grown in this century. As a state capital, the meaning and effect of home rule has been muted with the state legislature acting on occasion as an urban legislative body. Like New York, Los Angeles, Chicago and most other large cities, the central incorporated city of Boston has grown very little in the past seventy years. Instead, the municipal functions have gradually been replaced, supplemented or circumvented by regional agencies to regulate transportation, water supply, recreation, sewerage and public safety. Greater Boston has increasingly become a network of cities and towns, while the city of Boston has had decreasing control or influence in the region's development.

The diversity within the region is clearer when one analyzes the general demographic information. The United States Census uses two criteria in defining the SMSA: population density and place of work. Since population density and community work patterns are changing, the definition of the SMSA is a dynamic one. The Boston SMSA, as defined in the 1970 Census, consisted of 78 cities and towns and served as the study area for this Project. Of the 78 communities, 17 are cities and 61 are towns. The total land area is 988.29 square miles, and the total population is 2,753,700.

The Boston SMSA has a disproportionate share of both the problems and the resources of the state. On the basis of state totals, the SMSA had 49.5% of the firms, 59.4% of the annual payroll, and 55.6% of the average employment, with 48.4% of the population. One example of such an imbalance is higher education, the state's fourth largest industry with 70% of the state's public and private higher education facilities located within the region.

The maps which follow illustrate variables which highlight the complexity of an urban area which includes a number of highly urbanized suburbs:

RACE: Communities with a non-white population of 3% or more;
HISPANIC POPULATION: Communities with a Spanish language population of more than 1.75%;
INCOME: Communities with a median family income of below $10,000;
HOUSING: Communities where less than 34% of housing is owner occupied;
OCCUPATION: Communities where less than 25% of the employed persons are working in a professional or managerial capacity;
EDUCATION: Communities where less than 60% of the population 25 years and older has an education of 4 years of high school or more;
TAX BASE: Communities whose equalized valuation per school (attending) child is below $20,000 (1973);
SCHOOL TAXES: Communities where 35% or less of the municipal tax dollar was spent for schooling (1973);
PUBLIC SCHOOL ENROLLMENT BY RACE: Communities with a non-white public school enrollment of more than 9% for 1972-73

The nine maps -- showing racial, Hispanic, income, housing, occupational, and educational distributions, as well as variations in equalized valuation, school tax and non-white school enrollment -- illustrate the variations in needs and resources within the SMSA. Some communities share problems; those which occur repeatedly on these maps have a high percentage of several characteristics indicative of urban problems. Boston, Chelsea, Cambridge, Somerville, and Lynn, as several socio-economic indicators note, are communities with similar urban problems. Similarly, they have resources -- both multi-ethnic and multi-cultural -- upon which their neighbors may draw. These resources, which are dispersed throughout the Boston region, are both a problem and a promise.

Suburbs and city are physically overlapping and interlocking; the patterns which continue now in interdistrict concerns and intertown planning problems were, to a large extent, conditioned by the early growth of the central city itself. Throughout the 19th century, Boston was a series of islands linked by bridges and causeways. Those physical barriers have now been overcome, through landfill and more bridges and tunnels, but their cultural impact is still evident. Furthermore, through population mobility patterns, several suburbs are linked to specific neighborhoods in the city -- ethnically, racially, culturally, and economically. Those links have been reinforced through transportation growth patterns which add significant justification to the 19th century image of Boston as the "hub".

If the Boston region may be viewed as a "hub", it may also be seen as a case of contrasts between the city of Boston and its surrounding region. According to the 1970 census, of the 2,753,700 persons in the Boston SMSA, 94.5% were white, 4.6% were black, and 0.9% were classified as other non-white. Such an aggregation ignores the fact that the City of Boston had an 18.2% non-white population, while, the SMSA, not including Boston, had a 1.6% non-white population. In terms of school figures, the racial isolation is even more evident. In 1973-74, with an enrollment of over 90,800, Boston had a 41.4% non-white public school population while the percentage of non-white public school enrollment for all other SMSA school districts was 3.6%. Boston had 17.5% of the SMSA public school enrollment, but contained 71% of the non-white student body.

These contrasts are repeated with other demographic characteristics. Of the SMSA's occupied housing units, 53% are owner occupied and 47% renter occupied. Of Boston's occupied housing units, 27% are owner occupied, and 73% are renter occupied.

In organizing the financing of elementary and secondary education, the figures highlight the implications of other data. The core City of Boston, with only 4.4% of the SMSA land area, has 23.3% of the SMSA population, levies 28.9% of the total tax levy, and accounts for 30.7% of the total net debt. In 1972, the city's expenditure on public education was 18% of tha for the total SMSA, and its per pupil expenditure was $1,222, contrasted with the SMSA median of $1,082. Of the SMSA's total of 643,131 school attending children, of which 544,022 were in public schools, the City of Boston had, in 1972, 126,648 children in school, with 96,808 in public schools. The SMSA school districts in 1972-73 had a median enrollment of between 4,000 and 5,000 students, but nine districts had less than 1,000 students, and no district, other than Boston, had more than 20,000 students.

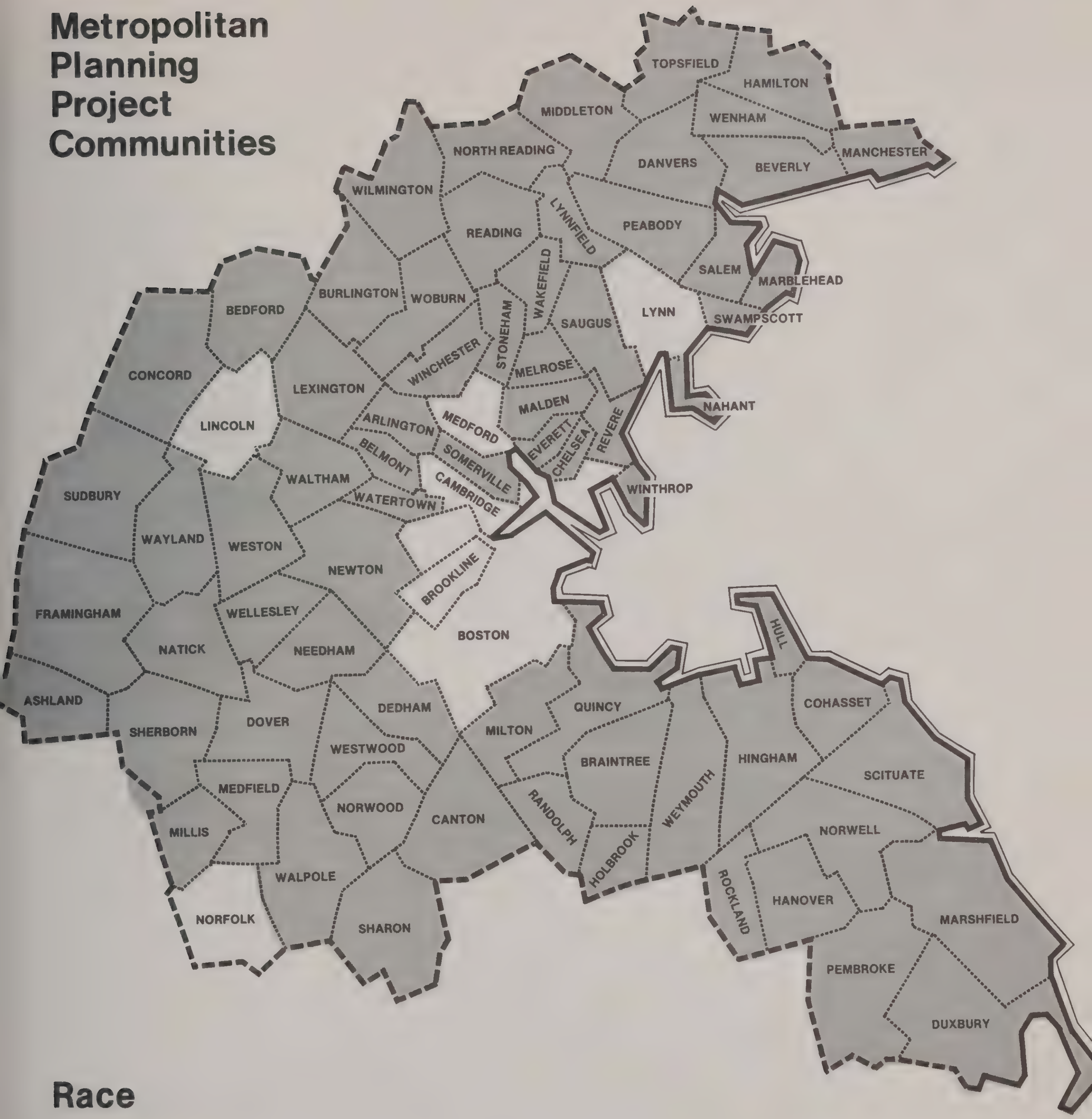
TABLE I - 1

PUBLIC SCHOOL ENROLLMENT BY SCHOOL DISTRICT SIZE in the Boston SMSA: 1972-73

Enrollment	Number of Districts
999 or under	9
1,000-1,999	8
2,000-4,999	27
5,000-9,999	27
10,000-19,999	10
20,000 or more	1

Source: Massachusetts State Department of Education, Racial Census, October 1972.

Metropolitan Planning Project Communities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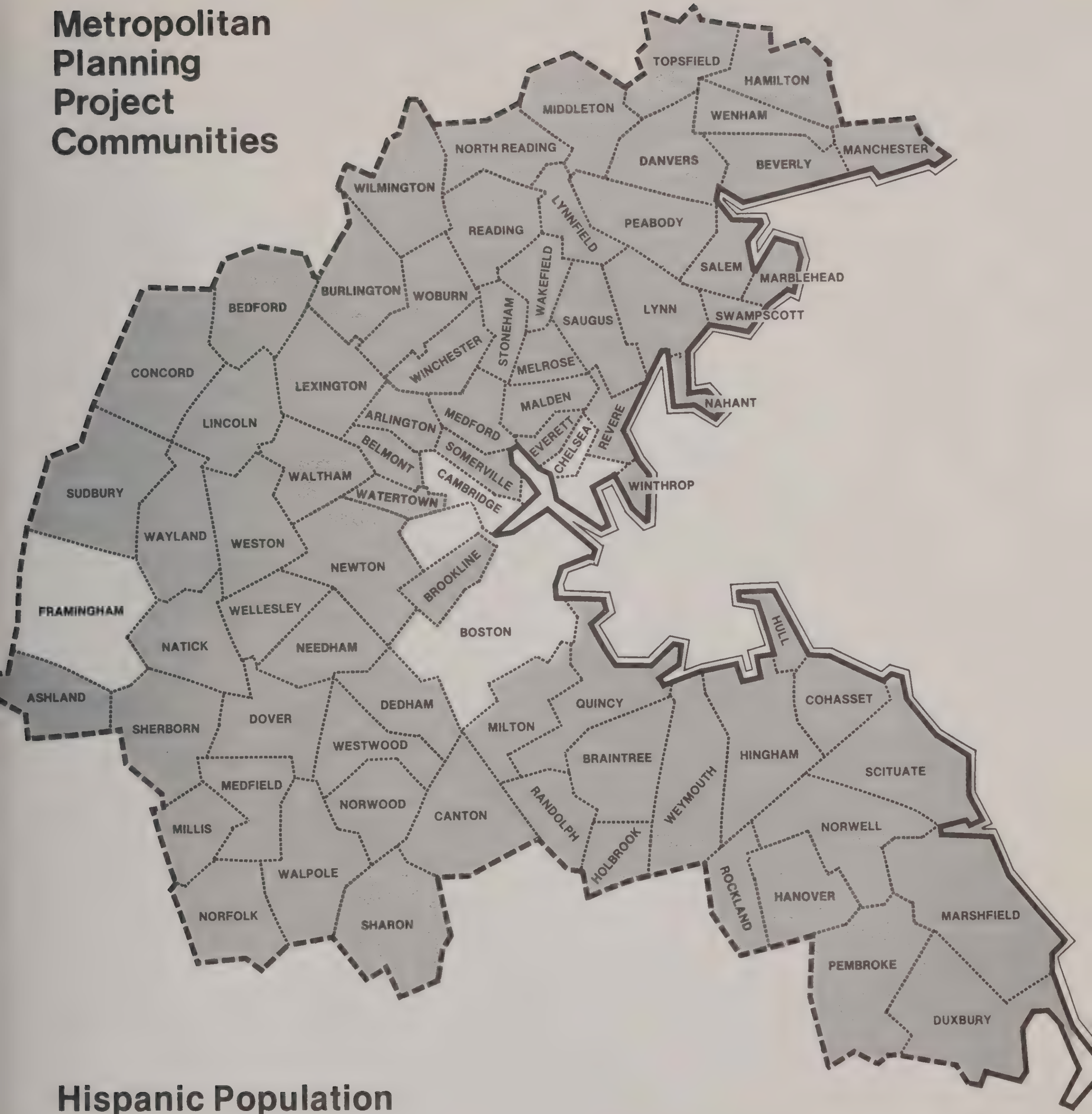
WALPOLE
ROCKLAND
HANOVER
NORFOLK
MARSHFIELD
SHARON
PEMBROKE
DUXBURY

Race

Communities with a non-white population of 3% or more.

Information Source: 1970 U.S. Census

Metropolitan Planning Project Communities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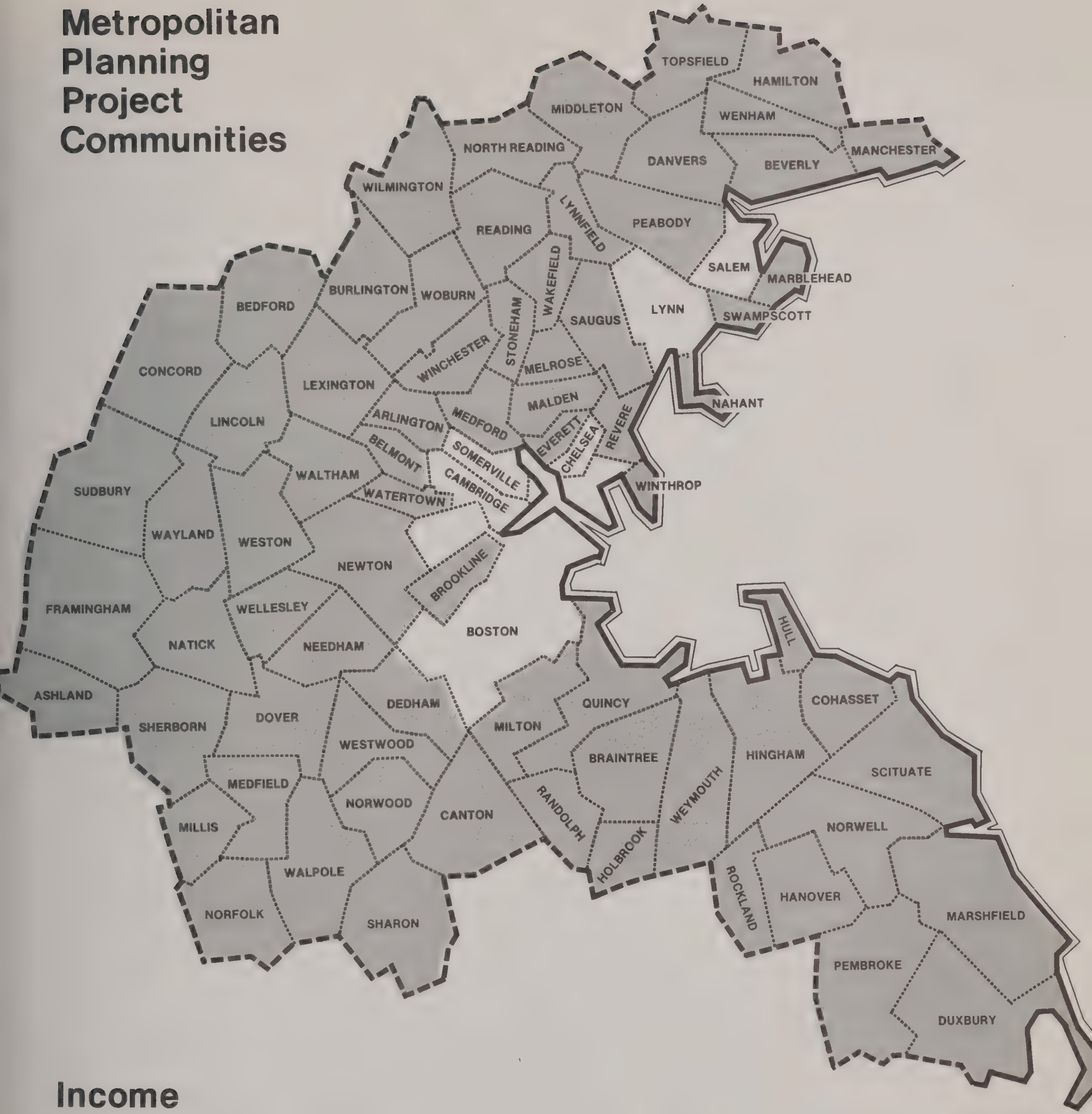
DUXBURY

Hispanic Population

Communities with a Spanish language population of more than 1.75%.

Information Source: 1970 U.S. Census

Metropolitan Planning Project Communities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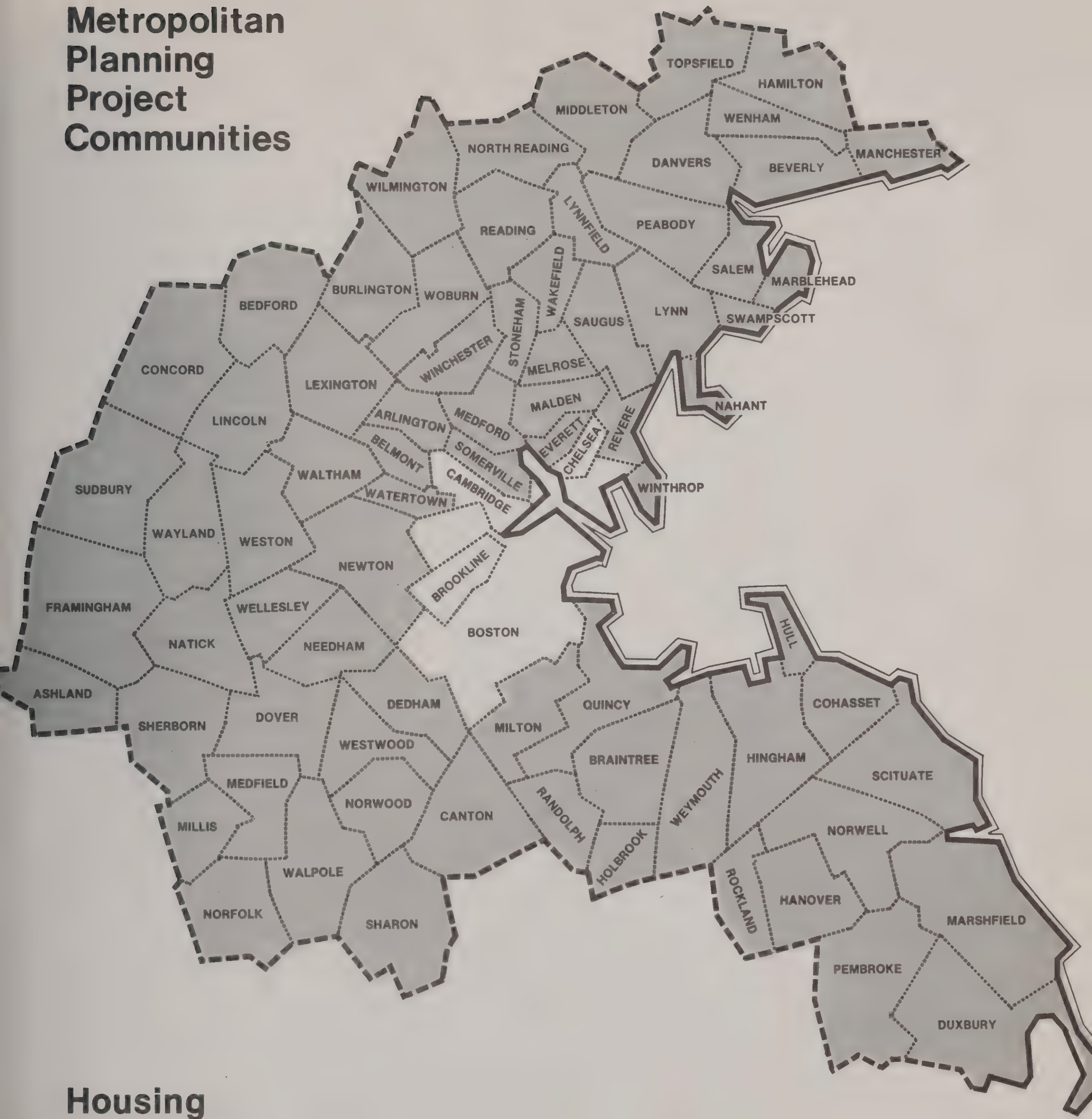
Income

Communities with a median family income of below $10,000.

Information Source: 1970 U.S. Census

Metropolitan Planning Project Communities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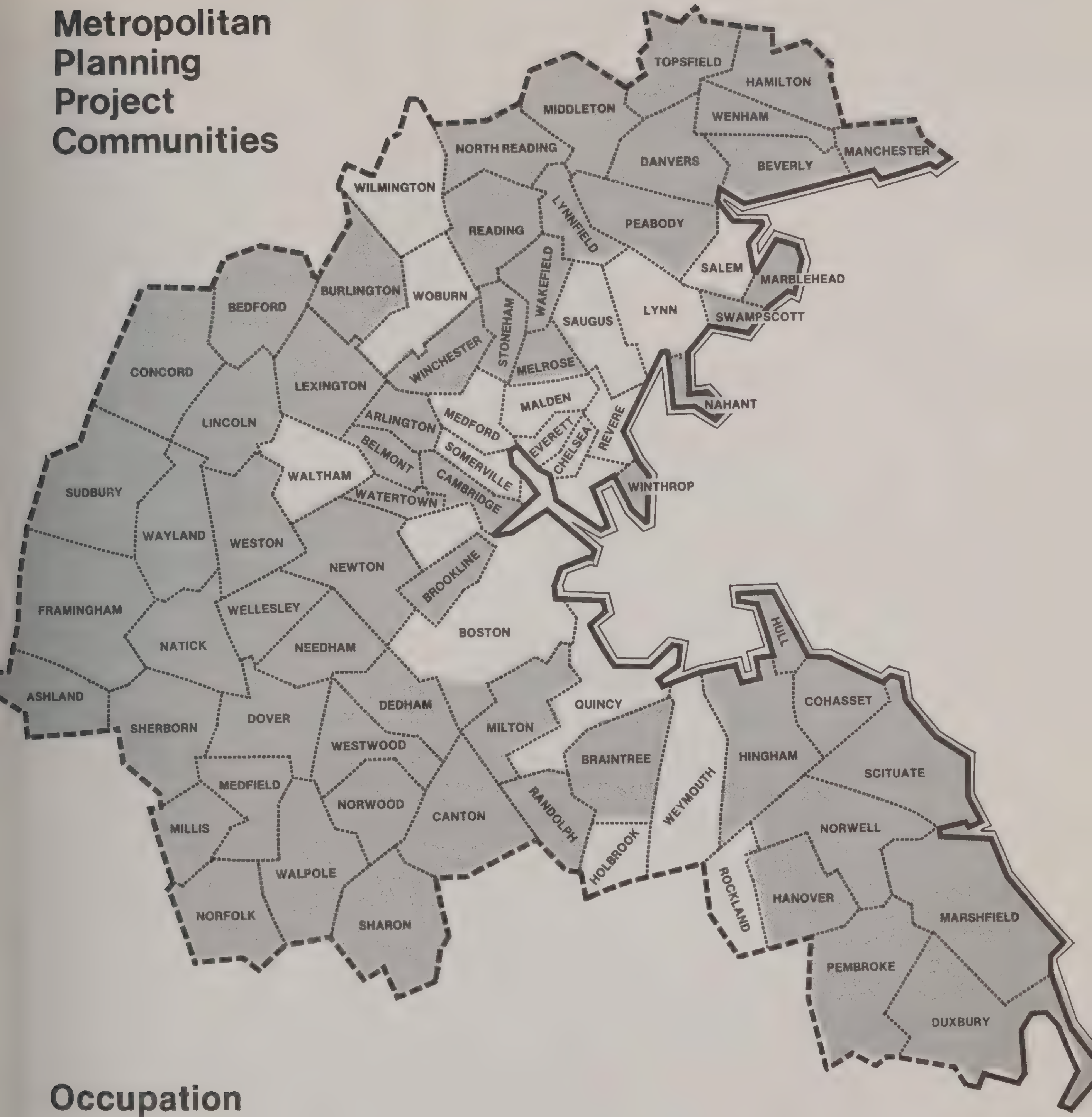
DUXBURY

Housing

Communities where less than 34% of housing is owner occupied.

Information Souce: 1970 U.S. Census

Metropolitan Planning Project Communities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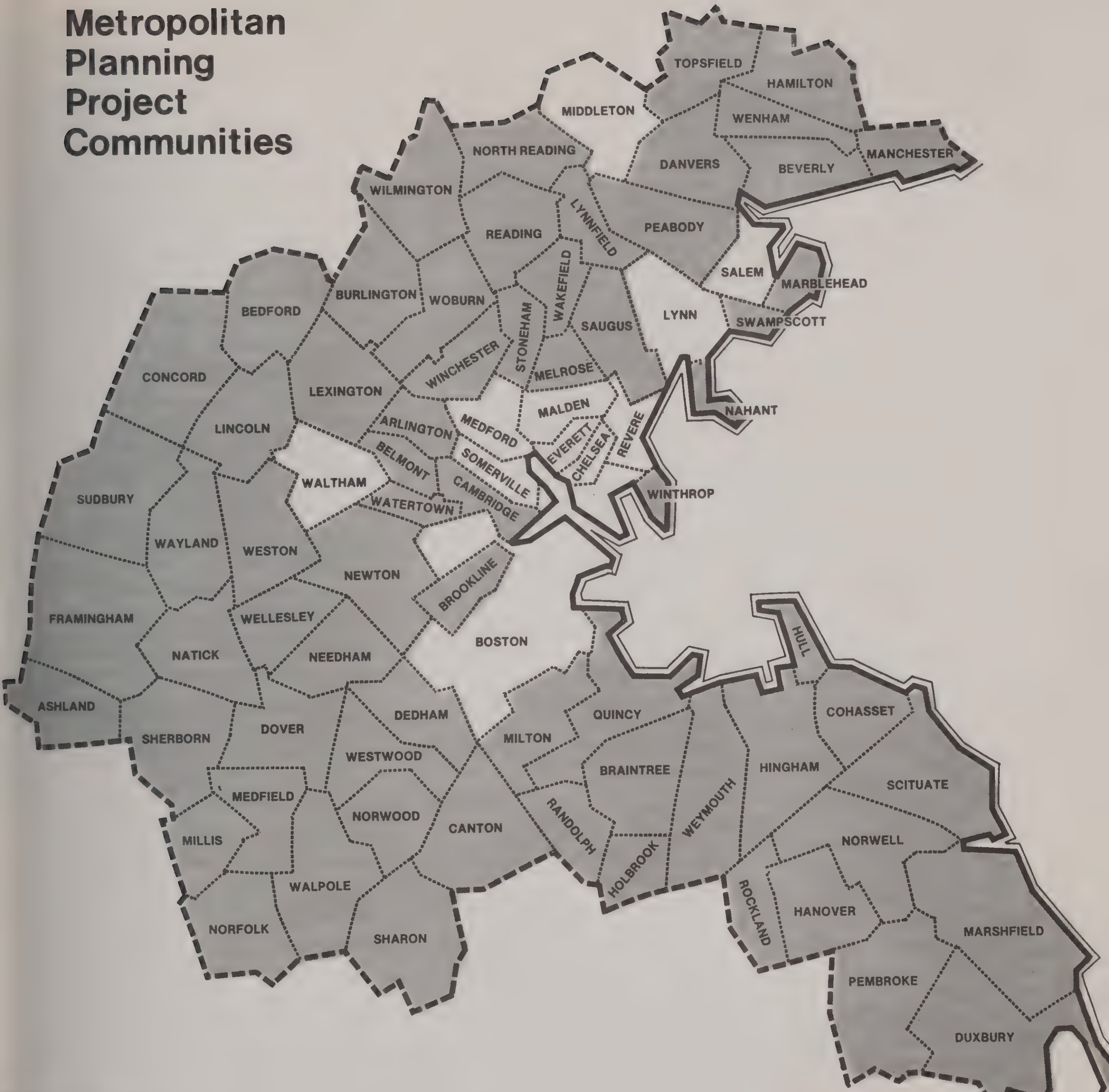
Occupation

Communities where less than 25% of the employed persons belong to the professional or managerial category.

Information Source: 1970 U.S. Census

Metropolitan Planning Project Communities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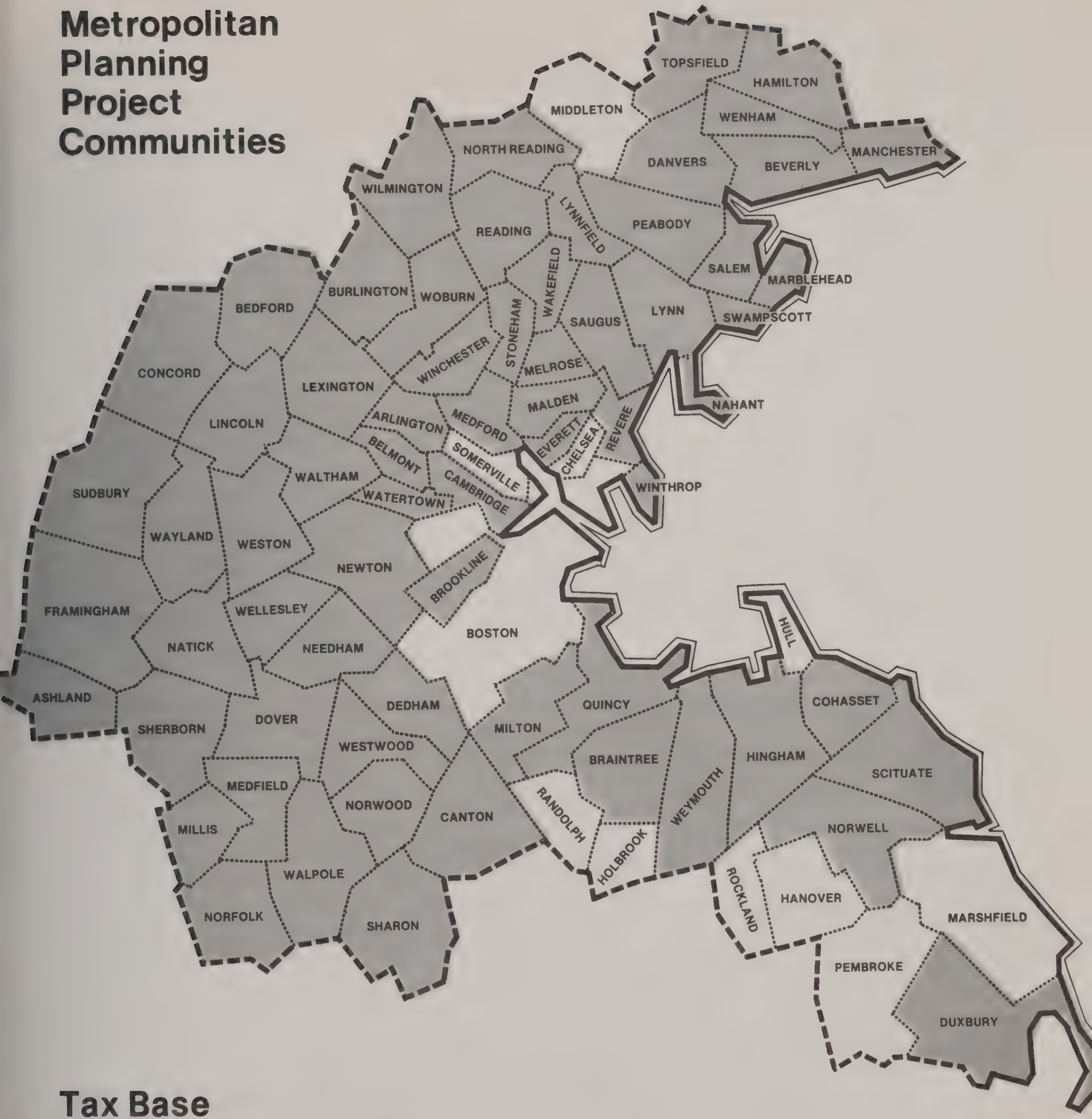
Education

Communities where less than 60% of the population of 25 years and older has an education of 4 years of high school or more.

Information Source: 1970 U.S. Census

Metropolitan Planning Project Communities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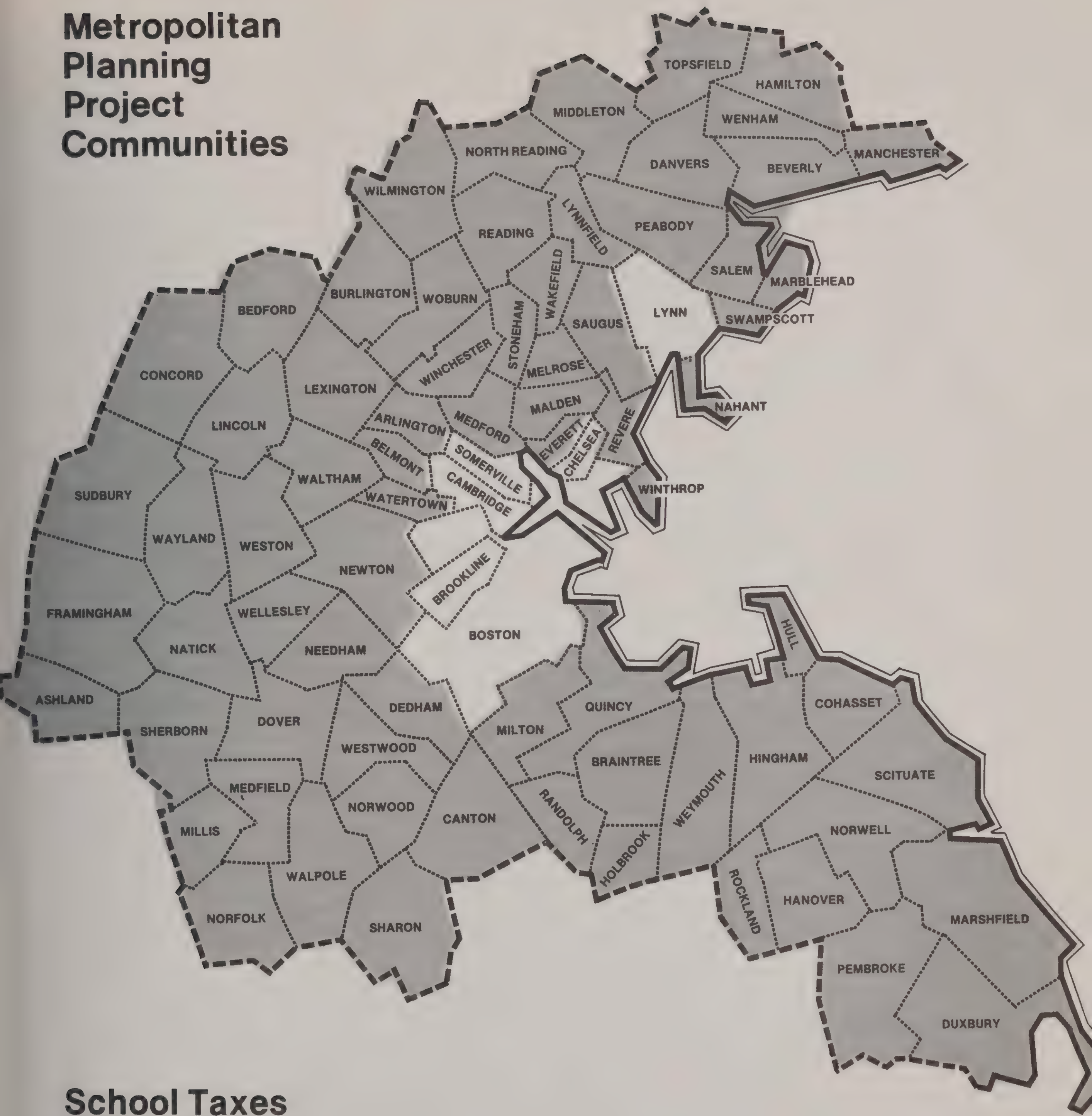
DUXBURY

Tax Base

Communities whose equalized valuation per school child is below $20,000.

Information Source: Massachusetts Teachers' Association Research Bulletin #734-9

Metropolitan Planning Project Communities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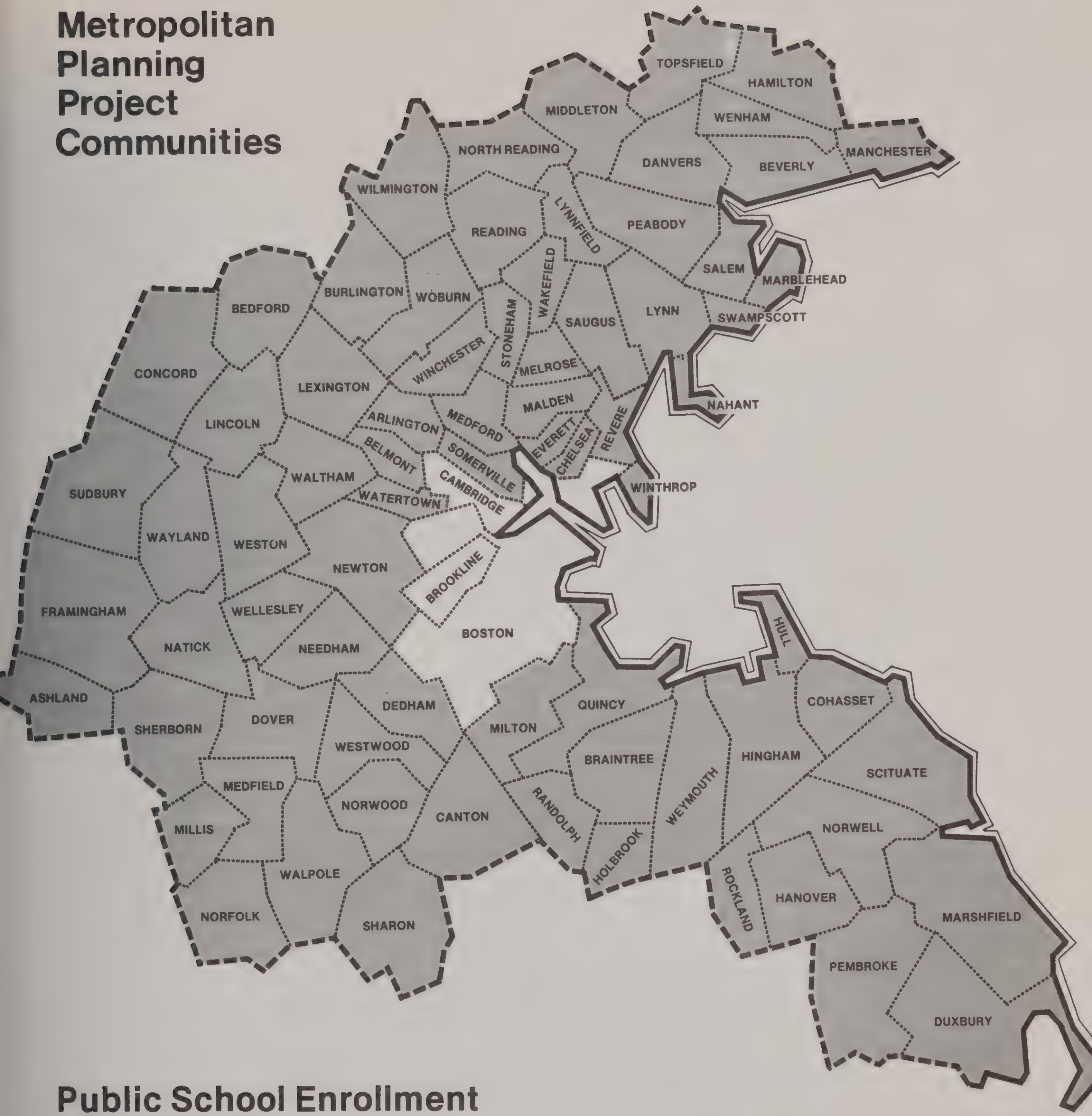
DUXBURY

School Taxes

Communities where 35% or less of the municipal tax dollar was spent for schooling.

Information Source: Massachusetts Teachers' Association Research Bulletin #734-9

Metropolitan Planning Project Communities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DUXBURY

Public School Enrollment by Race

Communities with a non-white public school enrollment of more than 9% for 1972-73.

Information Souce: Massachusetts State Department of Education, Racial Census, October 1972.

Size of a district is but one in a range of demographic variables selected to examine the SMSA communities. The variations among the cities and towns in the Boston SMSA could be considered a basic constraint on any concept of metropolitanism. While the SMSA contains a wide range of communities, some of those communities have significant problems. The nine maps exhibit the relative similarities of the urban core of the region, Boston, Chelsea, Cambridge, Somerville, and Lynn. They have much in common in spite of their unique histories and local politics. It is illustrative to examine these five cities in a little more detail to highlight the particular type of urbanism and metropolitan growth which has characterized the Boston region.

They are old cities. That is, their physical layout, their housing and public facilities, and even their average population age are considerably older than other cities and towns in the SMSA. Their age makes them ostensibly stable in terms of housing, aggregate population, and industry. Yet, that stability is both fragile and deceptive. The Chelsea fire of 1973, which destroyed a large part of the commercial area of that city, is indicative of how fragile the surface stability of each of these cities can be.

Somerville, Boston, Lynn, and Cambridge were all founded before 1637, and Chelsea was incorporated in 1739. Were they to have been politically weak, they would probably have been incorporated into a regional Boston city in the 19th century -- as has been the history of other cities in other SMSA's. On the other hand, the existence of very real boundaries isolates each of these cities or portions of them. Cambridge is linked to Boston by seven bridges and a causeway; Chelsea by one bridge; Somerville by only one expressway; and Lynn by one other. To an outsider, reviewing a map, they seem intrinsic to the overall region; to daily travelers, they are distinct and separate units.

These cities share common problems of age and isolation, a similar pattern of a diminishing tax base, and a financial decline of over depreciated industry. Yet, each city also has unique pockets of wealth and power, and of social, political or economic influence and status. Cambridge's Brattle Street is replicated in Lynn's Shoreline Drive. They each have different and distinct ethnic pockets, isolated from each other and linked to other similar pockets in other cities in the region. Such pockets of ethnic resources are, in today's terms, examples of economic isolation and, in some cases, racial isolation. Yet, they reflect the physical boundaries and cultural links going back three centuries.

This kind of social network is duplicated in the central city itself. Boston is a network of unusually independent neighborhoods. The economic, social, and cultural barriers are congruent with the physical barriers.

The extreme differences in the area's cities and towns illustrate the need for diversified kinds of metropolitanism in the Boston SMSA. In spite of common problems, the differences among even the most similar municipalities, the physical and geographic barriers, and the cultural resources of each, indicate the need for very different metropolitan strategies for providing urban services.

There are, however, three mutually exclusive but equally justifiable arguments which could be drawn from examining the communities within the Boston SMSA. The first argument, that the communities are hopelessly fragmented, is described by a review of any number of social indicators. Neighboring communities -- both within the city of Boston and between the city and its neighbors -- have remarkably different economic and educational statistics. This isolation is also evident in reviewing the maps included in this section. Towns and cities are bound by tradition and by significant physical barriers, separate from each other and politically disparate. The comparative tables in VOLUME II, PART TWO: TECHNICAL RESOURCES show over one hundred variables for each of the 78 SMSA municipalities with widely varying ranges.

The second argument is the converse of the first. A review of the Boston Redevelopment Authority planning district census areas highlights how similar some communities in Boston and some suburban communities really are. Some specific examples illustrate this similarity. Charlestown and Chelsea have far more in common than Charlestown and many other parts of the city into which it is legally incorporated -- on no table are the two communities more than three percentage points apart. West Roxbury and Winthrop both have virtually identical percentages of minorities, female heads of households, high school graduates, professionals, and unemployed. Boston has grown in an uneven pattern, incorporating some of its suburbs and leaving out some of its urban core.

The third argument suggests that the fragments of the SMSA are linked informally through patterns of social mobility. Ignoring the physical and legal bounds of the city of Boston, one may see parts of that city and parts of other cities as having more severe urban problems, gradually giving way to increasing suburbanization as one moves from the center to the distant suburbs. The comparative tables note rising income, increased professionalism, and decreasing numbers of minorities.

A central problem for a metropolitan plan is that each of these arguments is valid. Boston is not unified; suburban cities are extremely varied; population is socially and economically mobile. Further data supporting all three arguments is presented in VOLUME II, PART ONE: PROGRAM IMPLEMENTATION: 1974-75 TO 1982-83. There, each community within the SMSA is reviewed in terms of population, school system, links to other communities, transportation access, and economic resources. In that policy review, the communities are grouped according to geographic regions.

This description of the demographic and geographic constraints of a region's development is a picture of a diverse metropolitan area. The next chapters briefly detail the history and the issues which are subsumed under the metropolitan mandate, and outline the constituents and participants who were involved in the MPP planning process.

This study examines how best to develop education services which would meet the mandate of eliminating racial and ethnic student isolation in the schools of the metropolitan area.

CHAPTER II THE POLITICAL SETTING

CHAPTER II

THE POLITICAL SETTING

Introduction

The background to metropolitan solutions to racial and ethnic isolation in the Boston area can be traced as far back as 1855. In that year, Boston became the first American city to outlaw school segregation within its borders. At the end of the nineteenth century, the city and the state formed the first multi-functional regional agency, the Metropolitan District Commission (MDC). The MDC now provides fifty-four communities with parks, water, and sewage services. In some respects the MDC continues to be a model of voluntarism, with differing qualifications of membership, costs and fees to cooperating cities and towns, and varieties of regulatory or assistance services available to members.

A list of particularly significant events in recent history has formed a background of regional needs which prompted the MPP to respond. This list is not comprehensive; it is merely meant to be suggestive of the range and pace of events in the Boston area. The events illustrate the options which have been followed to meet the problems of student isolation metropolitan solutions, desegregation, integration in mandated or voluntary forms.

- Massachusetts Racial Imbalance Law; signed April 18, 1965: mandated annual racial census of public schools, and, in each school with a non-white enrollment of over 50%, the local School Committee responsible must end the imbalance or risk the loss of state aid.

- State desegregation plans (June 1965): called for balanced schools, reorganized open enrollment, bussed junior high school students.

- City desegregation plans: (June 1965) called for magnet schools, a different form of open enrollment, multi-ethnic texts, and middle schools.

- All state aid, $6.3 million for 1966, cut off to Boston in April 1966, by State Board of Education, for Boston School Committee's failure to comply with the Racial Imbalance Law.

- Two voluntary programs initiated, July 1966: Operation Exodus, a private intra-city bussing program, to take Black students to integrated Boston schools outside of Roxbury, provide tutorial help, and establish innovative education options; Metropolitan Council for Educational Opportunity Inc. (METCO), a interdistrict transfer program with federal, state, and private support, which moves inner-city non-white students to the surban school districts which have agreed to act as receiving districts.

* New Boston School Committe, (Spring 1967): bussing through METCO, no intradistrict bussing, closing of some imbalanced schools, and phased openings of new schools.

* State Board of Education acceptance of new plan (March 1967): released funds to Boston to prepare final version.

* Second School Committee Plan, (July 1967): 775 students in short term bussing program(575 in METCO); long term construction of eight new schools for 2500 students; portable classrooms for transitional schools; some new district lines; additional financing and parental involvement.

* Third School Committee Plan, (July 1969): new school construction-magnet schools with suburban district support. The Trotter School Plan, a demonstration district, involving non-white students from Boston and white students from Boston and the suburbs, with small classes and team teaching in an open cluster format and specially designed facility.

In five years three School Committee plans, plus negotiations, new models and various other innovations still left Boston with an increasing number of imbalanced schools.

These events only outline the increasing frustration of all groups in enforcing the Racial Imbalance Law. The responsibility of voluntary action fell exclusively on those parents willing to join METCO. The magnet school alternative encountered a hostile reception from neighborhood Black residents excluded from a long awaited program by the mandated racial balance system. Whenever a scheme seemed to offer a solution, it brought with it higher costs than benefits.

It was in such a context of frustration and growing antagonism that a variety of voluntary proposals were generated. In the years immediately preceding the Third School Committee Plan and its magnet school concept, a number of parent and community groups in Roxbury had established and maintained a small number of independent schools. These schools were amalgamated into the Federation of Community Schools, supported by parents, community groups, and a major Ford Foundation grant.

These schools demonstrated the limits of the voluntary magnet school concept in Boston outside of the public school system. With an open school format, they included a variety of different kinds of innovation. The New School for Children, for example, involved a number of universities; they provided trainers, staff aides, and outside resource personnel to the community-managed school. Such schools seemed radically different from their public counterparts and attracted much interest from both white and black parents in the city and in the suburbs. Yet they never enrolled a large number of students.

As early as November, 1970, the sources of support for such voluntarism had begun to break up. A series of racial incidents at two schools in transition areas demonstrated how quickly housing patterns were changing in certain neighborhoods. If voluntarism was ineffective in desegregating housing, it did not work in schooling; with open housing a failure, open enrollment, unregulated and without firm guidelines, did not offer much hope.

Legal and political problems in the central city gradually came into focus during 1970 and 1971. A student strike in February 1971, and the initiation of a minority hiring program in Boston schools followed legal action alleging discrimination against the Boston School Committee by the state. In September, an NAACP petition in federal court demonstrated the increasing tension in the city. In June 1971, the State Board of Education temporarily withheld $21.3 million from the School Committee because of its failure to increase integration. In September, the NAACP pressed the State Attorney General to enforce the anti-discrimination ruling, and filed a petition in federal court calling on federal agencies to force the Boston School Committee to comply with federal legislation. That same month the State Board of Education voted to withold $14 million in general school aid, and $200 million in construction aid, and to instruct the Attorney General to take legal action against the School Committee with the objective of obtaining a court ordered comprehensive plan to end all racial isolation.

These forces seemed to consolidate when, in December, the U.S. Department of Health, Education, and Welfare cited the Boston School Committee for de jure segregation. H.E.W. charged the School Committee with operating two separate school systems, one for whites, and one for non-whites. The Committee was given until February 1972, to voluntarily comply with federal laws, and Boston became the first Northern city to be cited for constitutional violations the U.S. Civil Rights Act of 1964.

While the anxieties increased, a number of metropolitan events affecting the area reflected a different perspective. Two landmark bills were passed and signed into law in 1971-72. The Transitional Bilingual Law of 1971 mandated bilingual options open to any citizen of the Commonwealth, thus offering the promise of a multi-cultural model for eliminating isolation

in the schools. The Comprehensive Special Education Law of 1972 mandated special education options for physically, emotionally, or economically handicapped students. Such options were required to be integrated into general education programs, thus offering the promise of individualized programming in all schools, responding to the physical, emotional, and educational needs of individual children. Although neither of these bills required interdistrict collaboration, they both suggested a teaching and learning style which was often beyond the scope of individual districts' resources.

In keeping with the spirit suggested by this legislation, there were also a number of rather major programs designed to promote innovative, individualized, and interdistrict or interschool cooperation. At the policy level, the General Court's Joint Education Committee funded a State Department of Education study of education trends in the metropolitan area. On a programmatic level, a number of interdistrict projects were funded, several through Title III of the Elementary and Secondary Education Act, and they provided a variety of service or instructional functions. Concurrently, the State Board decentralized and established Regional Education Centers, to provide technical and instructional assistance to school districts in six state regions. The regional centers had, among other goals, an objective of supporting metropolitan planning in the urban areas of the state.

The Massachusetts Advisory Commission on Education (MACE) and the Greater Boston Regional Education Center (GBREC) took the lead in supporting metropolitan planning in this area. Capitalizing on earlier interdistrict cooperatives, MACE initiated a study of potential collaboratives in the Boston Area. This study was contracted to the Education Collaborative (EdCo), a voluntary collaborative of school districts in the Boston area.

Completed by 1972, this study was then included in a major work coordinated by the Urban Planning Department of the Massachusetts Institute of Technology, The Boston Development Strategy Research Project.

During the study period, in February 1972, the NAACP brought a class action suit in federal court against the Boston School Committee and the State Board of Education accusing them of having undertaken policies which served to unconstitutionally segregate the Boston Schools. The plaintiffs suggested that the court should appropriately consider, in formulating its desegregation remedy, that suburban school systems be required to participate in a plan to end such segregation in Boston; that the Boston teaching staff be racially balanced in accordance with established federal law; and that facilities and recruitment policies be reviewed.

Increasingly, the issues of metropolitanism and minority group isolation were overlapping and by the summer of 1972, minority group isolation in the City of Boston was a problem for the courts, which engaged the state and local education agencies and only tangentially involved suburban communities. The matter of metropolitan cooperation was an educational problem for those concerned with racial isolation, but who were concerned as well with educational deprivation. Each of these approaches incorporated varying degrees of parental, student, or school district voluntarism. Each approached legal, political, or educational questions from different angles.

In August 1972, the Acting Commissioner of Education established a broad based Metropolitan Planning Commission to review potential metropolitan solutions to the problems of racial and ethnic isolation. Among those groups represented were superintendents, school committee members, teachers, student representatives of public and private higher education, arts institutions, city and state government, and community groups from the metropolitan municiplities. Others who were most assiduous in presenting the concept of volunta metropolitan collaboratives included the Boston Globe's education editor. The staff of the Greater Boston Regional Center acted as staff to the Commission and included as a legal consultant, the previous Minority Counsel to the U.S. Senate Select Committee on Equal Educational Opportunity.

A number of strategies for eliminating racial isolation emerged from this Commission. In February 1973, the guidelines of the Emergency School Aid Act of 1972 were promulgated. Believing that the general mandate of the Act, although not all of its specific sections, supported their objectives, the Commission requested the Greater Boston Regional Education Center staff to develop a proposal for ESAA funding under the metropolitan planning secti The Proposal included a needs assessment and addressed the overall mandate:

> " To encourage the voluntary elimination, reduction, or prevention of minority group isolation in elementary and secondary schools with substantial proportions of minority group students".

The ESAA required the testing of the feasibility of a desegregation plan based upon a formula stated in the Act. If the plan was found to be infeasible, then an alternative plan was to be developed. The direction of the Commission, and the proposal effort itself received the active support of the then newly-appointed Commissioner of Education.

While these plans were discussed, the Boston cases, state and federal, made their way through the courts. In October 1972, the State Board of Education established guidelines for a new city plan under the State Racial Imblance Act. The guidelines reflected earlier court decisions: setting uniform grade structures for all schools, outlining district lines reflectin neighborhood patterns, and applying voluntary programs and magnet schools whenever possible. In December these guidelines were overturned in the State Superior Court, only to have the original decision reaffirmed by a State Supreme Court decision later.

The Metropolitan Planning Project Proposal

In the same month the Commission staff, members of the Greater Boston Regional Education Center staff, initiated a series of meetings in the Winter of 1972 and early Spring of 1973, to discuss the Proposal with each School Committee. To qualify for a planning grant under ESAA, two-thirds of the districts in the Boston Standard Metropolitan Statistical Area (SMSA) had to approve the submission of the proposal. Seventeen School Committees chose to apply collaboratively for the funds. In April 1973, the applicant group of districts were assembled. With Brookline as the local education agency fiscal agent, sixteen other districts as co-applicants, and with thirty-nine others as approving districts, the Proposal was submitted to the Federal Office of Education (see List II-One and Map).

The Governing Board and an Advisory Committee were organized according to federal guidelines. The Governing Board contained the applicant districts, Advisory Committee members, a representative of the State Commissioner of Education, the Director of METCO, and the Superintendent of the Boston School System (unable to be an applicant as a consequence of its previously adjudged violation of the Civil Rights Act of 1964). Ex Officio members were the Secretary of Educational Affairs and representatives of the Metropolitan Cultural Alliance, the Massachusetts Teachers Association, and the Boston Teachers Union. The Advisory Committee was composed of one third of representatives from community organizations reflecting the minority groups enumerated in the legislation (Black, Spanish Surname, Native-American, and Asian-American), as well as one-third teachers and one-third students from the metropolitan area.

The basic assumptions of the Governing Board reflect the attitudes of their communities toward metropolitanism and racial isolation. The Proposal condensed these attitudes into five general themes. First, the Governing Board questioned the validity of "distributing evenly in each school within the SMSA a percentage of minority group students" according to a rigidly applied formula. Other sections of this Volume outline the feasibility of the application of such a formula.

The second theme of the Proposal highlighted "the process of planning", in which "significant insights into voluntary elimination, reduction or prevention of minority group isolation" would be developed. Outlined in greater detail later in this Volume, this approach to planning signified the hope of a realistic test of feasibility and validity. Moreover, it suggested that a plan must become feasible in the process of its development, that the role of a planning program is to extend and initiate discussions about specific and general planning issues, and that the product of such a program is and ought to be a dynamic planning process.

The third theme was pragmatism. The Governing Board sought funding to "help us develop a metropolitan desegregation plan that can work, that can enlist broad public and professional support and that can be implemented successfully well within the ten year cutoff period". A workable plan, broadly supported, to be implemented within a specified time schedule, gave direction and substance to the planning. This dialogue was to incorporate a wide range and variety of opinion, and to enlist consituency and organizational support.

The fourth theme denoted a specific kind of commitment. Earlier plans had come from a variety of sources. Many were sponsored by outside research agencies,

LIST II-One

SCHOOL DISTRICTS IN THE BOSTON STANDARD METROPOLITAN STATISTICAL AREA

Municipal School Districts

Arlington
Ashland

A Bedford
* Belmont
* Beverly
* Boston
Braintree
A Brookline
A Burlington

A Cambridge
Canton
* Chelsea
A Cohasset
Concord

Danvers
Dedham
Dover
Duxbury

Everett

A Framingham

* Hamilton
* Hanover
A Hingham
Holbrook
Hull

A Lexington
A Lincoln
* Lynn
Lynnfield

Malden
* Manchester
* Marblehead
A Marshfield
* Medfield
Medford
* Melrose
* Middleton
Millis
Milton

* Nahant
* Natick
* Needham
A Newton
* Norfolk
* North Reading
* Norwell
Norwood

A Peabody
* Pembroke

Quincy

Randolph
A Reading
* Revere
Rockland

* Salem
Saugus
* Scituate
* Sharon
Sherborn
* Somerville
A Stoneham
* Sudbury
* Swampscott

* Topsfield

* Wakefield
* Walpole
A Waltham
* Watertown
A Wayland
Wellesley
* Wenham
A Weston
Westwood
* Weymouth
* Wilmington
* Winchester
Winthrop
* Woburn

Regional School Districts

Dover-Sherborn

* Hamilton-Wenham

* Lincoln-Sudbury

* Experimental School System of the Commonwealth of Massachusetts

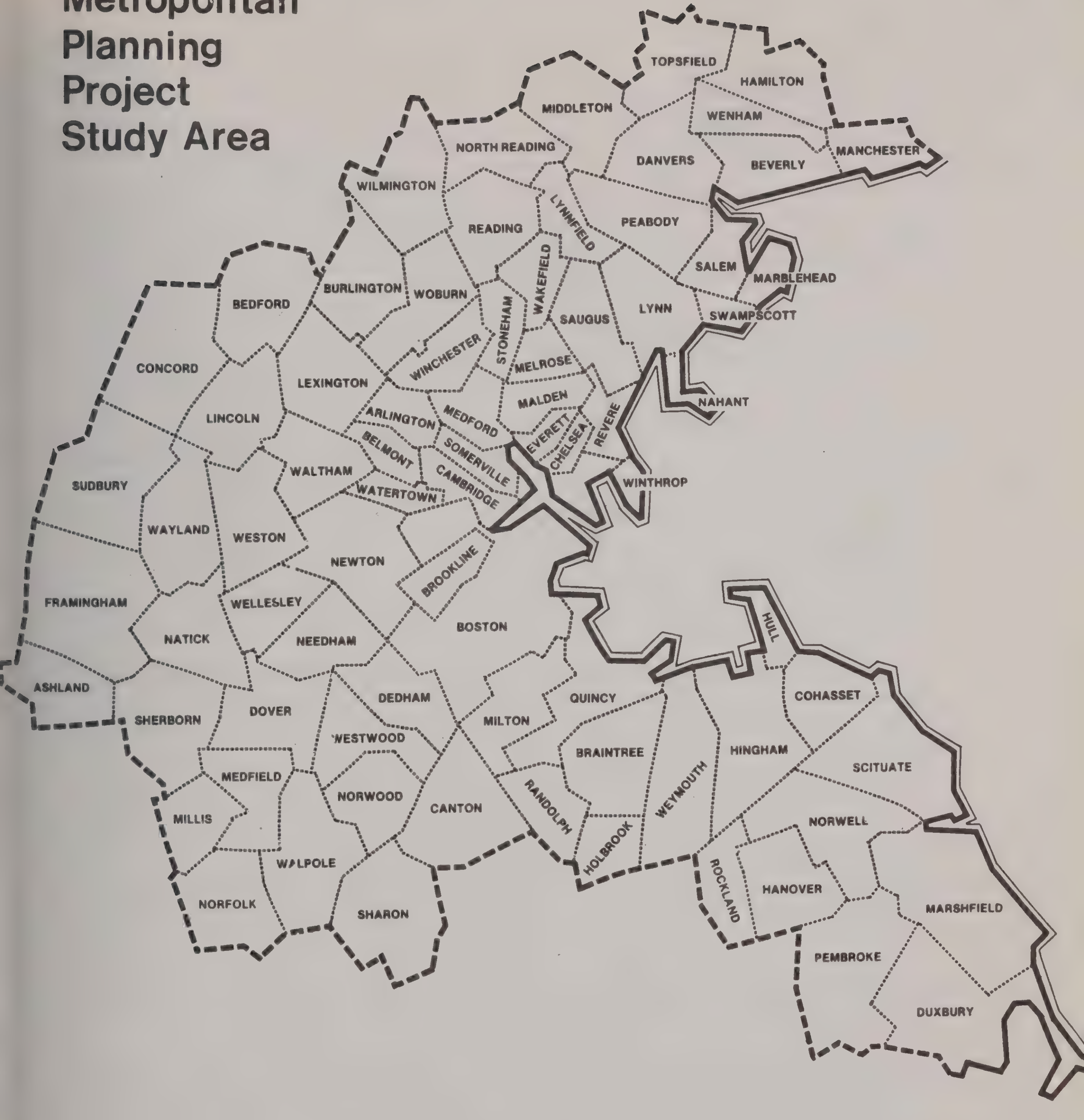
* North Shore Regional Vocational Tech

* = Approving District

A = Applicant District

APPLICANT DISTRICTS ARE GOVERNING BOARD MEMBERS.

Metropolitan Planning Project Study Area


TOPSFIELD
HAMILTON
MIDDLETON
WENHAM
NORTH READING
MANCHESTER
DANVERS
BEVERLY
WILMINGTON
READING
LYNNFIELD
PEABODY
SALEM
MARBLEHEAD
BEDFORD
BURLINGTON
WOBURN
WAKEFIELD
STONEHAM
SAUGUS
LYNN
SWAMPSCOTT
CONCORD
WINCHESTER
LEXINGTON
MELROSE
NAHANT
LINCOLN
MALDEN
ARLINGTON
MEDFORD
EVERETT
REVERE
CHELSEA
BELMONT
SOMERVILLE
WALTHAM
SUDBURY
CAMBRIDGE
WINTHROP
WATERTOWN
WAYLAND
WESTON
NEWTON
BROOKLINE
FRAMINGHAM
WELLESLEY
HULL
BOSTON
NATICK
NEEDHAM
ASHLAND
DEDHAM
QUINCY
COHASSET
SHERBORN
DOVER
MILTON
WESTWOOD
BRAINTREE
HINGHAM
SCITUATE
MEDFIELD
RANDOLPH
WEYMOUTH
NORWOOD
CANTON
MILLIS
NORWELL
HOLBROOK
WALPOLE
ROCKLAND
HANOVER
NORFOLK
MARSHFIELD
SHARON
PEMBROKE
DUXBURY

where an individual school system may or may not have participated in the planning. This proposed planning program represented "a commitment by seventeen school districts in the Greater Boston area to initiate a process of planning aimed at the development of a metropolitan desegregation plan". Such a commitment was not to "planning for its own sake," in which they had "no interest". The commitment was rather to "planning as a means of accomplishing a mutually acceptable goal." The program they initiated would coordinate a dialogue aimed at that goal and stimulate a variety of means by which they could accomplish that goal. It could not, either under Massachusetts law or political reality, present a map of specific coercive action to be enforced at a specified pace upon a number of school systems and the citizens they serve. It would rather capitalize on an existing commitment to develop shared voluntary integration, which would be successful because of its clearly communicated educational value.

The fifth and final theme stated their approach to the problem with utmost clarity. They would develop a system in which the consent of the participants gradually developed into a movement toward voluntary collaboration and metropolitan cooperation. As was said in the preface to their Proposal:

> "You cannot plan for others, especially in an area as sensitive as desegregation. Since the key element in any plan we will develop is that it be voluntary, it is especially critical that all affected parties be brought into the planning process."

The Governing Board's perspective was strongly pluralistic, incorporating parental, district, and federal concepts of voluntary collaboration with a metropolitan perspective. They did not make any assumptions about the degree of voluntarism which might effectively desegregate a metropolitan region. The Proposal was an affirmative expression that the removal of artificial barriers which cause student isolation would be the result of interdistrict cooperation and interdistrict planning, and that the mandate of the ESAA legislation would be best fulfilled through establishing strong programmatic links among different districts. Collaboration would eliminate the isolation of each group from each other groups and joint programming, interdependence among districts, as well as the movement of students would be part of the process to achieve it. Thus the Board early recognized the need to develop a range of strategies to accomplish a metropolitan program; no one strategy could be sufficient to respond to the many local concerns or to elicit the voluntary commitment of its members.

The Governing Board submitted the Metropolitan Planning Project Proposal in April 1973. In July, the Office of Education granted funding for $980,000. The goal of the program was to develop a phased Ten Year Plan to voluntarily eliminate racial and ethnic student isolation in the Boston metropolitan area, and to test the feasibility of that planning process. Although substantial, the funding was one-third of the original requested amount; nonetheless, only one of the original objectives was deleted from the Proposal.

Boston was the only metropolitan area in the nation to receive this kind of support and work was begun with great enthusiasm. In August 1973, the former Superintendent of Schools in Seattle was appointed Executive Director by the Governing Board; he then appointed a core staff.

MPP is a cooperative effort to encourage and plan for the phased elimination of racial and ethnic isolation in the schools by the reduction of minority student isolation in the Greater Boston metropolitan area by voluntary means. It is a planning process which depends upon the active participation of those most affected by such a plan -- school administrators, teachers, parents, students, community groups. It is a method of getting people to focus on the problems of racial and ethnic student isolation and of generating ideas which would work to solve those problems. It is a means of helping people to see their ideas formulated and implemented into workable programs. It is an effort to broaden collaboration, sharing, and cooperation among existing school districts in order to solve common educational problems. It is not a plan for forced integration or bussing. It is not a plan for establishing a metropolitan school district.

MPP was organized into three key components during the feasibility study:

COMMUNITY PARTICIPATION and PUBLIC INFORMATION was a major Project effort. Meetings were held throughout the metropolitan area to assess problems and to gather ideas from school administrators, parents, teachers, students, and community groups. These ideas form the basis of the plan which was developed by the Project staff and participants. A Public Information Program was established and is maintained by the Project. Its objective is to keep the public aware of the work of the Project and to develop a dialogue with school people and community groups throughout the metropolitan area. The program acts as a communications link among the 78 municipal school districts, the teacher organizations, parent groups, minority groups, and students who are concerned about the issue of racial isolation.

DESIGN OF LEARNING ENVIRONMENTS was another major concern. As a result of city and suburban exchange of ideas, MPP has helped to promote the development of over 78 proposals in 32 cities and towns for the design of new innovative learning environments. With a $300,000 allocation for pilot programming, 14 pilot projects were funded to test MPP objectives. The projects included students from pre-kindergarten through high school age and focused on such topics as: business and economics, American history, art, ecology, energy, diverse life styles, as well as curriculum and materials relating to Afro-American, Hispanic, Native-American, and Asian-American cultures.

SUPPORT RESEARCH provided the technical foundation for the Project's planning process. This effort compiled extensive data on the educational, demographic, housing, fiscal, socio-economic, land use and ethnic and racial characteristics of the 78 towns and cities in the Greater Boston SMSA. This information was developed as a needs analysis and issue identification and has been utilized in the development of the recommended educational programs. An inventory model was developed to survey available educational programs and facilities. In addition, a pilot survey of community resources was undertaken to identify people and institutions willing to offer integrated learning programs in Bedford, Brighton, Framingham, and Boston's South End. Position papers were written and draft legislation was developed for submission to the General Court.

In the course of developing the Proposal, and throughout the succeeding planning year, events in the Boston area tended to move faster than anyone had expected. The year included suit and countersuit between the State Board of Education and the Boston School Committee. Such contests in 1973 and 1974 included state and federal courts, city and state political figures, and, ultimately, federal court enforcement. A state plan was supported by a State Supreme Court and by a federal court order, but the state Racial Imbalance Law was massively revised to provide for voluntary magnet school programs and facilities. On Friday, June 22, Judge W. Arthur Garrity Jr., of the U.S. District Court, found that:

> "The defendants (School Committee) have knowingly carried out a systematic program of segregation affecting all of the city's students, teachers, and school facilities and have intentionally brought about and maintained a dual school system. Therefore the entire school system of Boston is unconstitutionally segregated."

In response to the mandate of the federal court, the Boston School Committee is now implementing a desegregation bussing plan. Judge Garrity's order may have significant metropolitan impact in terms of interdistrict cooperative projects. A number of metropolitan options do remain. Concurrent with the Garrity decision, the State Legislature allocated significant funds for metropolitan programs under the revised Racial Imbalance Law.

The pace of desegration efforts seems to have accelerated in the past few years. The frustration of city and suburban parents, school committees, and politicans, combined with a renewed and critical activity of the courts, both state and federal, and major political movements in the legislative and executive at both state and city levels all point to the need for plans which incorporate action, citizen participation and programmatic experimentation. It is within this context that the MPP Propsoal was developed. It is a way to recommend options to the parents and children in the SMSA for eliminating racial and ethnic isolation of students in the Boston metropolitan area.

CHAPTER III THE CONSTITUENTS AND PARTICIPATION

CHAPTER III

THE CONSTITUENTS AND PARTICIPATION

Introduction

The context for this study necessitates a review of the groups and constituencies affected by its planning process. Those groups were varied and brought to the planning a wide range of expectations. This chapter of the contextual review is a digest of the groups, organizations, and unorganized constituencies who were involved or who were expected to be involved in the first year of planning and in the course of continued planning initiated by the Metropolitan Planning Project.

This review of groups and of their expectations first outlines each one's functional role as each view it in the social organization and political framework of the Boston area. Once identified, they seemed to form general areas of similar interests. Thus government agencies, at all levels, operate for roughly similar purposes, in spite of differing responsibilities. Community organizations, whether specialized or general, permanent or temporary, often have a similar advocacy role in planning dialogues.

Second, the range of shared general impressions these groups seemed to have of the entire Project, its goals or its strategies is briefly sketched. This summary of real and perceived opinions is a picture of the social and political context within which this study functioned.

Expectations of the Metropolitan Planning Project by Various Groups

It became obvious early in the Project during the fall of 1973, that various persons and groups held widely differing understandings of what MPP was to be about, particularly during its first year of operation. The dissemination of a more precise description of MPP's mission had little effect in creating a common understanding; it appears that this phenomenon was less a function of information than of widely varying self-perceptions and self-interests. Also, the Project began with a sizable budget decrease by Washington from that which was understood by the superintendents and school committees who had initially sought participation. The several different expectations of MPP, held by certain predominant groups are outlined as follows. This analysis is adopted principally from field-based reports, gathered by MPP's external evaluation prepared by TDR Associates.

Expectations of the Federal Project Officers

These expectations are discussed in some detail in the following chapter on MPP's mandate, but a few summary statements seem necessary. Federal Project Officers viewed MPP from a legal, administrative perspective, expecting that in one year it would produce a plan for the complete desegregation of each individual school building in the Greater Boston SMSA. Within this view, all pilot activities, such as the Design of Learning Environments projects, were considered to be planning tools to be developed into estimates of scale of participation by using the data compiled by MPP's Support Research Component.

Expectations of Other Government and Non-Profit Agencies

One of the objectives of the Support Research Component was to identify and form a data-gathering network with other agencies engaged in different aspects of metropolitan planning, and to survey data already available. Federal, state, local, regional and private agencies whose work scope included education, economic development, manpower, social services, housing, health, transportation, public safety, recreation and culture, environmental quality, budgeting and planning were contacted in the course of the study. As the network developed, several expectation problems emerged from these agencies. There was a lack of underatanding about the relationship between education and other urban services, such as transportation, housing, and community development. The belief that education was a purely local function, with no metropolitan scope whatsoever, seemed common to most of these groups. More generally, different levels and functional service agencies in education seemed inordinately isolated from each other. The function of the Metropolitan Planning Project, as noted in the initial proposal, became that of an educational process: a catalyst which met with different agencies indicating the potential links between different urban functions and attempting to develop some forms of collaboration among them.

Although there was a sense of good will and helpfulness on the part of most of those agencies, it was only at the end of the feasibility study, that some of the professionals in these agencies began to use the variety of information which was, and had been, available. This, in spite of open information exchange in meetings, frequent and informative briefings, and a ready interchange of ideas, seemed different than expected. The informality of the information network was, and has remained both an inhibition and an accelerator in helping different agencies to use and to understand their own work in relation to education systems more effectively.

Expectations of Applicant and Approving School Districts

The principal expectation of Superintendents and School Committees was that MPP would initiate some actions toward the elimination of student isolation, as well as plan for such action. It was in this light that the approving districts had anticipated more than a single year of full funding. Their disappointment with the lack of Congressional support for metropolitan education planning was more than political and economic. The projects they had initially anticipated were longer term, both in potential impact on metropolitan education programs and governance and in potential impact on student services within their own district. For example, a major selling point in their signing initially was a $226,390 staff development component for the training of staff in participating districts. That training would have been in human relations, management techniques, and pluralistic education.

The Federal Project Officers subsequently cut this request down to $38,000. Another area, cooperative business ventures, was completely eliminated. Such projects highlight the area of potential conflict between Boston metropolitan goals and federal wishes.

The school districts also expected MPP to formulate concrete plans for achieving the reduction of student isolation, and to present those plans to them for reactions and commitment to action. The MPP staff developed a participatory mechanism and asked school staff and citizens in these districts for "input" and "preferences". This style of community participation left some of those involved with a misunderstanding, that MPP lacked a coherent sense of mission. During the year, the consequences of such early difference in style may have been largely overcome, though not sufficiently to win back all segments of the metropolitan community whose support MPP hoped to have.

Expectations of Parents' Groups

All parent groups contacted seemed to see MPP as a funding agency, and hoped funds would be made available for their proposals for urban-suburban exchange programs. Minority groups felt that they had been traditionally excluded from educational decision making; and both minority and majority groups felt that they should be involved at different points in the planning, in policy-making, as well as the delivery or the supervision of pilot programs. Specifically, there were significant differences among the groups in terms of when, what or how they would have some say over programs within MPP plans. Urban and suburban parents' priorities differed. Among urban parents there were also some significant differences. In defining quality education, their perceptions of specific needs tended to vary widely.

To urban minority group parents, the potential improvement of basic skills and a priority over any potential gains through diverse social interaction. To suburban parents, although academic issues sometimes were expressed, a higher priority was the promise of cultural and social exchange with the resources of the central city.

There were major exceptions in both groups. To many suburban parents, having recently left the city, the promise of exchange was considerably less attractive. To a number of minority group urban parents, the academic resources of suburban schools did not outweigh fear for the safety of their children when being transported, or fear of the bigotry their children may encounter in some suburban districts. And to some non-minority group urban parents, urban schooling seemed adequate to meet their children's educational needs.

Urban parents did share some more specific attitudes. Both minority and non-minority group parents expected their groups' interest to be adequately addressed in all stages of planning. They expected a positive recognition of their respective cultural differences, and were concerned that their groups' cultural impact on American history be recognized and reflected in a total curriculum. They expected planners to use the communication mechanisms already in place. That is, they expected Title I Advisory Committees, local Councils for Children, Model Neighborhood Committees, local Councils for Education Committees, churches, and citizen action groups to be consulted as a matter of course. And it was assumed that such groups' professional, cultural or educational expertise would be put to maximum use.

Urban parents shared with suburban parents a number of other organizational concerns. Both sets looked for certain benefits to flow back to their respective communities out of any kind of metropolitan plan. Specifically, they wanted some evidence of improvement in basic skills, in the identification and understanding of their particular cultures, and the provision of information about new programs to prospective participants. Further, they expected assistance in developing new programs themselves, in using minority group personnel in staffing exchange programs, and provision of assistance to staff members of intercultural programs. They wanted staff development to be available for all persons involved: administrators, teachers, classroom professional or auxiliary personnel, as well as transportation and maintenance personnel, parents, and others.

Certain strategies were more successful in eliciting this kind of information than other strategies. For example, community members expected some outline of a tangible plan or some skeletal structure. They could and did respond to such documents, and were effectively involved in "fleshing" out substantive suggestions. This seemed particularly useful in working with urban parents or community group members, whose attention was often divided among a variety of community concerns. In a number of cases, parents who were involved in school planning were also concerned with community-police relations, housing conditions, health care, child care, vocational skills training, economic development, welfare rights, and other issues.

Expectations of the Metropolitan Planning Project Shared by Groups

There were several themes regarding expectations of the Metropolitan Planning Project which were shared by all groups. Expectations may be viewed historically from where they began, or critically from what they have to offer. This section reviews a set of perceptions which may or may not be valid, but which had impact on the year's planning. Each perception serves as an example of the range of opinion available in the participatory planning process. They have served as a set of outer limits, which metropolitan planning did eventually encounter.

Providing Mini-Grants for Multiple Local Projects

This interpretation of MPP's goal was expressed by people who viewed MPP principally as a source of funds for projects which bring majority and minority group children together for educational experiences. One condition in qualifying for funds was that two or more communities be involved.

Thus, this view acknowledged local self-interest, with a stake and involvement in giving additional support to existing activities or programs, or in new programs or new alliances. It viewed MPP principally as a source of funds.

A Few Main Thrusts

This view of MPP was the project as developing and pushing hard on a few thrusts or themes that would have immediate and visible success. Some of the themes suggested were: using existing transportation to reach educational programs that would help deal with the energy crisis; using the cultural institutions of Boston as an attraction to racially integrated programs; and minority group hiring in the suburbs. This view looked at the proliferation of multiple local projects without a coordinated theme with disfavor, as incapable of generating and sustaining a "critical mass" for voluntary collaboration. It viewed MPP principally as a substantive program resource.

Planning for Specific Numbers of Student Exchanges and Programs

This is a more legalistic and governmental view of MPP. It holds that the Project must find voluntary means for the total elimination of segregation, defined as more than 50% minority group membership in school buildings, and for the reduction and prevention of minority group isolation in school buildings which will have 20 to 50% minority group enrollment by 1983. Bussing was often mentioned, along with mass transit, as the principle means of achieving this goal.

Helping Communities in a "Grass Roots" Planning Process

This view placed a high value on local controls and democratic planning processes. It saw MPP principally as a resource which will help communities to establish and maintain a planning process. The assumption was that such a process will lead to multi-racial programs and activities and eventually reduce minority group isolation. Furthermore, local participation will empower those programs and activities, thus enhancing their longevity. Others who view this as the principal goal of MPP saw it in negative terms as a delaying tactic.

Consciousness Raising in the Suburbs

This view saw MPP principally as an agency working toward attitudinal change in the suburbs. It pictured an advertising and public information campaign, along with sensitivity training and other re-educational experiences, as necessary before minority group students would be properly accepted into suburban schools.

Developing a "Coordinating Planning Group"

The principal aim of MPP from this view was to establish an agency which can coordinate all or most of the multi-racial, interdistrict programs of other agencies. MPP would use its resources to further stimulate and support interdistrict and interagency collaboration leading to efforts which contribute to the reduction of minority group isolation. This did not assume that MPP would sit and wait for groups to come to it, but that MPP would actively aid groups which it felt could benefit by working together.

A Way to Avoid Facing the "Real" Issues and Problems

This view sees the "real" issue as racism, and the problem as the unwillingness of white people and white institutions to provide the resources necessary for the equality of opportunities for minority group people. Proponents of this view see MPP as a structure through which resources will be channeled for the principal benefit of white students and white educators in the suburbs.

Summary

Only time and the historic perceptions of the constituent groups will be able to assess the accuracy of any of these views which influenced the development of the phased Ten Year Plan. MPP was multifaceted and, indeed, reflected many of these perspectives in its feasibility study. Part of its basic approach, participatory planning, brought them into the planning process and MPP's metropolitan education programs are reflective of these views.

CHAPTER IV THE MANDATE

CHAPTER IV

THE MANDATE

Introduction

The discussion of the context of the Metropolitan Planning Project establishes a framework for understanding the physical, political and cultural limits within which its planning has and will take place. That context is informal. The formal mandate, to which the feasibility study is a response, is more concrete, and provides the criteria to review MPP's products. Its primary concept is workability. That concept yields overriding criterion in evaluating any metropolitan desegregation plan: it must hold the promise for improving the quality of education of all the participating students. Yet, workability alone is too broad to provide the only measure of project success. The mandate provides the criteria of feasibility which will be discussed in Part Three, OPTIONS, Chapter VII, "The Formula Plan".

The Mandate of the Metropolitan Planning Project

The Boston Metropolitan Planning Project was funded under Section 709(a)(2) of the Emergency School Aid Act (ESAA), passed by Congress on June 23, 1972 as Title VII of the Education Amendments of 1972. The legislative history of this law may be found in Senate Report No. 92-61, the Senate Committee Report on S. 1557 (April 16, 1972), Senate Report No. 92-798, and the Conference Report on the Education Amendments of 1972 (May 22, 1972). The U. S. Department of Health, Education and Welfare published regulations governing the Act, which appeared in the Federal Registers of December 2, 1972 (Vol. 37, No. 233, p. 25746) and March 2, 1973 (Vol. 38, No. 41, p. 5644). These were both codified in 45 CFR Part 185, Subpart D.

The HEW Notification of Grant Award to the Brookline Public Schools, dated September 1973, also discusses the Act and the regulations. On page one, "Special Condition" Number 1 states: "This grant shall be administered in accordance with 45 CFR Part 185, Subpart D, published in the Federal Register . . . " Special Condition Number 2 makes a number of other Grant Terms and Conditions "a part of this grant." One of these Grant Terms (Number 9) provides for termination of the grant "in whole or in part" if the Grantee has failed to carry out the Terms and Conditions of the grant . . . in accordance with the applicable law or has otherwise failed to comply with any law or regulation."

Metropolitan Planning Project activities and work products have met the requirements of the Emergency School Aid Act of 1972 and the HEW regulations, as well as the Proposal itself.

The MPP Proposal states on page 1 that ESAA funds will be used "to help us develop a metropolitan desegregation plan that can work . . . and that can be implemented successfullly well within the ten year cutoff period." And again (page 2): this proposal describes "a planning process aimed at achieving total desegregation of metropolitan Boston." The MPP stated a "commitment to develop a plan that can succeed in eliminating all racially isolated schools by July 1, 1983." The preface of the MPP Proposal pledges the Project to "undertake seriously to evaluate the validity and feasibility of a plan developed in accordance with the specific formula set out in Section 709 (a) (2)." Thus, the kind of plan required by the Act and regulations, and referred to in the Metropolitan Planning Project Proposal, is a plan that will outline specific steps, to the maximum feasible extent, to eliminate racial and ethnic student isolation in the learning enviornment in the Boston Standard Metropolitan Statistical Area (SMSA). The SMSA is defined in Chapter I.

The Metropolitan Planning Project was funded under Section 709 of the Act. That section describes the requirements of a formula plan. The formula plan should be a jointly developed plan to reduce and eliminate minority group isolation, to the maximum extent possible, in the public elementary and secondary schools in the SMSA. The percentage of minority group children enrolled in each school should be at least 50 percent of the percentage of such children enrolled in all such schools in the area.

The Act defines "minority group isolation" as a condition in any school where minority group children constitute more than 50% of the school's enrollment (Section 720 [10]). The term "minority group" refers to persons who are Black, American Indian, Spanish-surnamed American, Portuguese, Oriental, Alaskan natives, and Hawaiian natives. The term "Spanish-surnamed American" includes persons of Mexican, Puerto Rican, Cuban, or Spanish origin or ancestry. Moreover, and as determined by the Assistant Secretary, it includes persons who are from environments in which a dominant language is other than English, and who, as a result of language barriers and cultural differences, do not have an equal educational opportunity.

The term voluntary in the Emergency School Aid Act refers to the voluntary action by school committees to approve and implement plans which would reduce minority student isolation without having been required by Court order or federal enforcement proceedings to do so.

The use of the word "voluntary" in this definition has been understood by some to refer to the principle of voluntariness on the part of the individual participants in the plan. The word as used in the Act, however, has an entirely different meaning. It refers to local educational agencies which are willing to adopt and implement desegregation plans "without having been required to do so" by any court order or by an HEW Title VI (of the

Civil Rights Act of 1964) enforcement proceeding, Section 706 (a) (1) (A) and (D). The Congressional Conference Committee reporting on the provisions of the bill further explained that assistance under the Act is intended for "school districts voluntarily enrolling and educating children who would not otherwise be eligible for enrollment because of non-residence" (Senate Report No. 92-798, p. 214). Nowhere in the Act itself or the reports of the Senate and Conference Committees that fashioned the bill are there even any references to plans that would rely for their effectiveness on individual voluntary enrollments.

In the Boston metropolitan area, which has a relatively small minority group population, the federal government considered it MPP's obligation to chart the elimination of minority group isolation rather than merely aim for reduction. The Project is required by the section of the law under which it receives funds (709) (a) to develop a "formula plan" which eliminates minority group isolation, so that within each school in the SMSA the percentage of minority group children will be at least one half the percentage of minority group children within the entire SMSA by July 1 1983. If the study concludes, after reviewing the factual consequences of such a solution, that its implementation would be infeasible, that is, educationally unsound or logistically difficult, or both, any school system which would be affected may reject its implementation.

If implementation of the plan developed according to the formula is considered infeasible, the Project accepted the responsibility to devise an alternative Ten Year Plan drawing upon the planning resources already developed with the funds received. This alternative plan, if implemented, would not meet the specific formula of Section 709 (a) (2), but would satisfy the basic statutory purpose of eliminating minority group isolation to the maximum extent possible in the Boston metropolitan area through the involvement of suburban schools and otherwise meet the purposes of the Emergency School Aid Act as stated in section 702 (b).

The alternative plan is based upon the premises of voluntary participation by every community using a collaborative governance structure. However, if voluntary incentives have not succeeded in eliminating minority group isolation before July 1 1983, the simulation model presented in Part Three: OPTIONS, would, if implemented, guarantee that minority group isolation is ended throughout the metropolitan area by that date.

Furthermore, a plan for elimination of minority group isolation must be judged by whether all schools in the SMSA shall be at least 50 percent of the percentage of such children enrolled in all such schools in the area. While the Emergency School Aid Act does not restrict the meaning of "schools" to traditional educational buildings, it clearly requires more than part-time integrated experiences to satisfy the requirement for eliminating minority group isolation. Thus, it is full-time educational experiences which must be integrated when the plan recommends collaboratives of existing school systems. Every collaborative must include a school system in which minority group isolated schools presently exist, or would exist but for the plan's implementation. It is, therefore, suggested, both through the analysis of the law and the racial, ethnic, socio-economic, and demographic data, that every proposed collaborative include the city of Boston.

The strict requirements of the Act are clear and unambiguous. If the total number of minority children enrolled throughout the schools of the Boston SMSA constitute 8.4% of the total Boston SMSA school enrollment in 1972-73, the Act requires that the Ten Year Plan should bring about a minimum of 4.2% minority group enrollment in every school, elementary and secondary, throughout the SMSA, with no individual school having more than 50% minority group enrollment. The HEW regulations provide that the Ten Year Plan must "specify in detail the means by which such objective is to be achieved" (45CPR 185.31 (b) 1). They also call for a "comprehensive demographic study", projections of housing patterns, and the possible participation of zoning boards, regional planning organizations, and appropriate housing authorities (45CFR 185.35 (b) 1).

Summary

Metropolitan Planning Project has undertaken a process whose product is in compliance with the law and compatible with the Proposal as written. It has, therefore, seriously tested the feasibility of a formula plan in a simulation model which distributes minority students throughout the schools of the SMSA in a proportion required by law. In doing so, it has used criteria of quality education requirements, transportation, demographic, and socio-economic factors.

The feasibility criteria, based upon the federal mandate, the MPP Proposal, and the research developed during the planning year is described in Part Three: OPTIONS, Chapter VII, "The Formula Plan." These same criteria are utilized to test the feasibility of "The Alternative Plan: Metropolitan Education Programs," which is discussed in Chapter VIII.

Part Two

THE FRAMEWORK FOR ACTION

CHAPTER V THE PLANNING PROCESS

CHAPTER V

THE PLANNING PROCESS

Introduction

Several conceptual approaches were used and tested in the course of this year's planning. Each approach may be replicated in other metropolitan regions if appropriate. Each reflects a different complex of disciplines and planning skills. Viewed as a whole, this planning process represents an approach which, when applied flexibly and openly, can support metropolitan planning for a number of purposes. As applied by MPP, this process demonstrates the feasibility of voluntary collaboration for the elimination of racial and ethnic isolation with quality education programs. The models used in this feasibility study were experimental in nature. This chapter reviews their operation and examines their usefulness. The overall conceptual framework is established by the mandate and made explicit by the contextual goal:

> To develop a phased Ten Year Plan to eliminate ethnic and racial student isolation in the metropolitan area through voluntary collaboration of school districts by focusing on innovative educational programming developed by the participants, located on third sites, and predicated upon a comprehensive urban planning approach to school systems planning.

The conceptual approaches include three models (see Diagram V-I). The first model utilized the techniques of comprehensive urban planning applied to public education systems in which the interrelationship of the metropolitan areas education systems and other metropolitan systems was specified. This approach is outlined in the first section of this chapter; the core of this approach, the data gathering network, the community resource inventory and the community profiles are discussed in some detail.

A conceptual scheme for participatory planning in assessing metropolitan needs and developing metropolitan programs represents the second of these approaches. That approach, applied by MPP, included an extensive effort to involve the citizenry and their institutions through participation techniques and public information methods. The latter involved a two-way system of metropolitan discussion. A dialogue which, however, when coordinated with the other vehicles for metropolitan planning, was a significantly enriched form of community participation and citizen education. In this chapter, the procedure and rationale of community participation and public information are outlined as planning devices and models of action research in metropolitan issues.

DIAGRAM V - I

SCHEMATIC DIAGRAM OF THE CONCEPTUAL FRAMEWORK
Of The MPP Planning Process

CONCEPTUAL MODEL I: SUPPORT RESEARCH

Contextual Goal:

To develop a phased Ten Year Plan to eliminate ethnic and racial student isolation in the metropolitan area through voluntary collaboration of school districts by focusing on innovative educational programming developed by the participants, located on third sites, and predicated upon a comprehensive urban planning approach to school systems planning.

Active Goal: To develop the technical and informational bases for a phased Ten Year Plan which would provide for the elimination of minority group student isolation in the Boston metropolitan area.

Operational Goals

1. To apply comprehensive urban planning methodology to school systems; to integrate the analysis of the school system with other urban systems within municipalities.

2. To locate other agencies who are data sources about different demographic, socio-economic, educational, racial and ethnic characteristics of the metropolitan area, to assess the availability and validity of the data and to determine which data lends itself to comparability, since the Metropolitan Planning Project is a secondary data collection study.

3. To systematically and comprehensively identify minority group student isolation and to describe and to analyze the factors which would lead to educational programming to reduce minority group student isolation.

4. To systematically and comprehensively identify issues and problems, strengths and weaknesses, of interdistrict collaboration.

5. To develop a model for conducting an inventory of community resources which will lead to educational programming to eliminate minority group student isolation.

6. To analyze current governance programs as models, both education and education related, as a way to utilize the existing knowledge; to draw from them recommendations for voluntary collaborative groupings of school districts within the SMSA.

Proposal Objectives/Stated Goals:

A. To form a data-gathering network with other agencies engaged in different aspects of metropolitan planning and survey the data presently available.

Although neophytes at comprehensive metropolitan planning, we are fortunate to have in the Boston area other agencies which have already embarked on metropolitan planning in "non-educational" areas. The Massachusetts Department of Community Affairs, Office of Regional Planning and The Metropolitan Area Planning Council (supported by a grant from HUD) have begun consideration of metropolitan needs and plans in such areas as economic development, housing, and transportation. While we anticipate extensive dialogue with these other planning units during the project year, the first job of the Support Research staff will be to assess the demographic, housing, transportation, and economic development data presently available, and to establish the means for rapid exchange of new data as it becomes available.

B. To develop profiles and analyses of racial, ethnic, economic, and education characteristics of the metropolitan area and of its individual communities.

The socio-economic profiles of each community can be developed after the following characteristics are investigated and data relating to those characteristics, among others, will be gathered and interpreted:

1. Social composition of the population in each district; ethnic and racial composition; education levels of the adult population; concentrations of non-English speaking population.

2. Economic characteristics of the population; household income distribution; unemployment rates; occupation level.

3. Population growth rates; age distribution of population; average family size; birth rate; in-and-out migration trends.

4. Economic characteristics of the district; property valuations; school tax rates; land use trends; commercial and industrial developments.

5. Educational characteristics of the district; school expenditures by category; federal aid received; curriculum offerings; staff characteristics; student achievement; local educational goals.

C. To develop an enrollment projection model to assist regional planning for educational facilities and personnel.

During the sixties, school age population increased in many towns as the overall population increased. This trend will likely not continue into the seventies. Enrollment statistics from 1970-71 reveal a possible new pattern. In seventeen Greater Boston communities fewer children entered the first grade than entered high school (ninth grade). The most telling evidence for declining school age population, though, is from census data which indicates a decline in birth rates.

In developing an enrollment projection model, a subcontractor will examine certain variables for each district. These include but are not limited to:

1. Proportion of school age children actually attending school.
2. Percent and projected distribution between private and public schools.
3. Migration factors in past years - derived from comparison of survival ratio predictions and actual enrollments, modified by factors 1 and 2 above.
4. Future influence on migration:
    a) economic changes in district; in-or-out migration of industry; land-use trends;
    b) expansion of institutions, e.g., universities;
    c) new housing construction.

D. To gather data for use in determining available spaces for assignment of students to educational programs and facilities without regard to traditional district lines; code and place in a retrieval system base data on all such facilities; and make this data easily available to SMSA school systems.

In order to develop and implement effective metropolitan collaboration in education, it is necessary to know what educational facilities, public and non-public, are available and where they are. At present there is no such single, current, comprehensive inventory available. To reach our objective, the following activities will be necessary:

1. Develop criteria for an inventory, including definitions of teaching stations and capacity.

2. Develop separate reporting forms showing categories of programs affecting secondary and elementary age school children.

3. Develop a retrieval system.

4. Using Research and Development Sources, send sufficient forms for an inventory to cooperating districts with return date.

5. Process and program completed forms for storage in retrieval systems.

E. To develop and make available an inventory of community resources able and willing to participate in integrated innovative educational programs.

Some of the innovative integrated educational programs presently operating in the Boston metropolitan area and others which are being proposed (see Component on Designing Learning Environments) are premised upon off-campus learning at "non-school" institutions in the metropolitan community. Such institutions include industry, religious and social service organizations, broadcast and journalism media, colleges and universities, and cultural institutions. Additionally, the metropolitan area is rich in creative people - "non-educators" - who have ability and enthusiasm to offer to the educational process but whose talents have been largely ignored.

The purpose of a community resource inventory would thus be to have readily available information on how the community can respond to perceived educational needs; and how resources within the community can help to define the contributions which the schools can make to the education of the area's children. The following activities which will either be subcontracted or performed by project staff depending upon the quality of subcontract proposals and the capabilities of project staff, will be necessary to complete this objective:

1. Survey community institutions for their educational capacities and their commitment to offer their resources, involving students wherever possible in survey activities.

2. Solicit biographical data and statement of possible educational interests of "non-educator" community members.

3. a) Develop criteria with maximum student participation to select those people and institutions whose statements coincide with project objectives;

   b) Implement the selection procedure.

4. Match those selected resources with stated educational needs by a retrieval system.

5. Design a systematic means of disseminating the complete and categorized community resource inventory and of keeping it up-to-date.

6. Plan for the development of a facility and mechanism of exchange, training, and cooperative planning between educators and community resource people.

F. To draft legislative proposals removing obstacles to metropolitan collaboration and facilitating the mechanisms developed by the planning process.

Basic to drafting legislative proposals is an understanding of the organization models which may be suitable for the resolution of legal and political issues associated with the governance of metropolitan collaborative efforts leading towards project goals. The staff in cooperation with the Greater Boston Regional Center will attempt to develop knowledge of these models prior to the drafting of such legislation.

The framework within which schools operate in Massachusetts is essentially a function of statutory law. Even the germinal efforts of collaboration in the Boston area undertaken by METCO and EdCo required enabling or facilitating legislation. Planning surely means recommendations for change; change will require legislative action; those responsible for comprehensive planning, with the assistance of counsel, will be in the best position to propose the specific legislation needed.

Counsel will, from time to time, be consulted to review the necessity for new legislation to achieve objectives posed by planners, and to prepare legislative proposals consistent with those objectives.

Outcome/Products:

1. Information systems of demographic, socioeconomic, transportation, housing, educational, community resources and facilities data describing the Boston Metropolitan Area on several levels of geographic specificity including SMSA, school district, and individual school attendance area. Seventy-nine community profiles of Volume III; over fifty Comparative Tables of Volume II PART TWO were developed.

2. A data bank which includes the information systems, updating procedures, and models of replicability of the planning process.

DIAGRAM V - I -- continued/6

3. Assessment of the feasibility of the formula plan as mandated by the ESAA.

4. Development of position papers on Governance Structure, Tax Policy, Housing and Transportation.

5. Recommendations for collaborative groupings of school districts which will utilize innovative educational programming to reduce minority group student isolation as METROPATHWAYS, METROPAIRWAYS and METRO ETHNIC RESOURCE CENTERS.

6. Recommendations for a METROCENTER which would act as a support service to these programs through staff development, program development and resource development and the continued development of the phased Ten Year Plan policy recommendations.

CONCEPTUAL MODEL II: COMMUNITY PARTICIPATION AND PUBLIC INFORMATION

Contextual Goal:

> To develop a phased Ten Year Plan to eliminate ethnic and racial student isolation in the metropolitan area through voluntary collaboration of school districts by focusing on innovative educational programming developed by the participants, located on third sites, and predicated upon a comprehensive urban planning approach to school systems planning.

Active Goal: To develop a structure for meaningful interaction through participatory planning between community groups and school districts and the Metropolitan Planning Project aimed at the development of proposals which will reduce ethnic and racial student isolation, such that a substantial range of educational problems and their solutions are represented in these proposals, and such that a substantial representation from urban and suburban minority groups are involved in these proposals. To create a communications network for the dissemination of information about MPP. The purpose of this effort is to gain information review and critique which lead to collaborative development of the phased Ten Year Plan.

Operational Goals:

1. To develop a communications network of school and community interaction through:
    a. meetings, workshops, task forces, immediate accessibility of staff, public relations strategy;

    b. newsletters; bulletins; personnel contact with Advisory Committee;

    c. newspaper articles, press releases;

    d. surveys;

    e. master mailing list.

2. To prepare teachers, students, principals, para-professionals and parents for metropolitan educational programming for the reduction of minority group student isolation by the development of a staff development program for the operational phase of the educational program recommendations of the Ten Year Plan.

3. To identify the constituencies of the Metropolitan Planning Project and to systematically involve them in a dialogue leading to participatory planning and collaborative program development for the Ten Year Plan.

4. To develop audio-visual mechanisms to support the participatory and informational goals.

5. To develop media teaming to present MPP activities in ways which are compatable to particular components.

Proposal Objectives/Stated Goals:

A. To initiate a dialogue within the SMSA communities regarding the goals and objectives of the Metropolitan Planning Project.

Among the first tasks of the Project staff will be the formation of a Community Participation and Public Information Program. An initial step would be a primary explanation, via appropriate media, of the total Project. Its purpose would be to develop a plan to reduce or eliminate minority group student isolation in our schools; and, its approach would be to develop such a plan through voluntary collaboration among the school districts in the Boston SMSA. Accompanying this explanation would be an invitation to interested parties such as civic and community organizations, teacher associations, businesses and governmental agencies to participate in the planning process. Parent groups, student bodies, civic and community organizations, teacher associations, businesses and governmental agencies would be asked to state their interests, concerns and competencies. A master mailing list would be developed and updated to those with high interest levels. The goal would be to (1) keep the general public informed, and (2) to identify in each school district groups with high interest levels.

B. To encourage and solicit a wide range of participation from school and community groups in the process of planning metropolitan collaboration and the elimination of minority group isolation in the SMSA.

After the interested groups have been identified in each community, a communications network would be formed. Such groups would be given a range of options to choose from depending on their desire for involvement. They might wish to begin their participation on the level of receiving information: What is the exact nature of the Project? What kinds of options or solutions have been explored to date locally, nationally and internationally? What legal and administrative actions affect education in the Boston SMSA? What is the extent and effect of minority group isolation in our metropolitan area? From that point, they may choose to explore the nature of minority group isolation in their own community (or extent of non-minority group isolation). Some groups may decide to follow up their investigations with concrete suggestions about how the problem should be addressed.

C. To enable the Advisory Committee to carry out its responsibilities to the various constituencies represented by its membership.

Our Advisory Committee will act as consultants to the Project staff, suggesting appropriate ways to be in contact with their communities. To accomplish this, the Committee will need support services. Their service to the community, while voluntary, should not cause them financial hardship. The staff and facilities of the resource centers should be available to them so that they are best able to "feel the pulse of the community".

D. To provide minority groups with a series of communication vehicles which permit them to describe the richness of their several cultures to the larger community.

During our initial proposal review, our Advisory Committee, which has 2/3 minority representation, stated that "minority groups are often more familiar with mainstream American culture than that culture is familiar with minority cultures".

They saw this lack of knowledge and appreciation for minority cultures as furthering fear and misunderstanding. Thus, we see a portion of the budget being set aside to allow minority groups to prepare their own statements via the media of their choice including print and non-print.

E. To create and sustain responsive feedback between the Project and the general public.

Project staff will devise mechanisms for reporting on the several activities undertaken by the Project as a whole. These information networks will be more than a one-way channel. They will provide ways for the public to comment upon, respond to, and be a part of the overall planning process. Utilizing the mass media, we will develop strategies for this information flow:

1. Television: (educational) simulation programs with community call-in feedback. Balloting and computer tally.
2. News media: weekly news releases to all media. Write-in response column, newspaper inserts with balloting, computer scanned.
3. Radio: public affairs information data. Development of bilingual information network.

Newspaper ballots, backed by optical scanning and computer tabulation of returned ballot, offer a relatively inexpensive polling technique with the advantage that citizens study issues in depth at their own convenience.

F. To design a plan for training school personnel to assume leadership in the organization of change and in gaining wide acceptance of Project goals.

Those who will manage the changes necessary to eliminate minority group isolation will also have to set the stage for those changes. Two simultaneous activities involving administrators, school committee members and teachers will be held.

1. A plan will be devised for long range management training as needed to achieve attitudinal change among professional educators.

2. Workshops will be held to sensitize the above groups to the issues of cultural and racial isolation and to prepare them to provide leadership in changing the climate of their districts.

   Consultants who are skilled in human relations and organizational change will be hired to conduct the planning and training activities.

Outcome/Products:

1. A collaborative planning process which leads to implementing specific program recommendations: METROPATHWAYS, METROPAIRWAYS, and METRO ETHNIC HERITAGE RESOURCE CENTERS.

2. A collaborative planning process which led to the METROCENTER FOR COMMUNICATIONS, COUNSELLING, AND RESOURCE DEVELOPMENT and support services; staff development programs to support METROPATHWAYS and METROPAIRWAYS.

3. A network of urban and suburban community groups which participated in collaborative planning for the phased Ten Year Plan.

4. An information exchange network in which newsletters, newspaper articles and news releases were distributed directly to over 4,000 persons in the metropolitan area and over one hundred and twenty media contacts.

5. An information and communications exchange with some of the specific political and educational constituencies from which the Metropolitan Planning Project programs may grow and be supported.

6. Multi-media presentation of the Ten Year Plan at a Report Conference and meetings.

7. The development of a staff development model for training school personnel and the development of two pilot programs as a part of METROPATHWAYS: Charles River Project, (a course in environmental study) and Political Discovery Project, (a course involving the study of three levels of government, using the Government Center Complex in Boston).

CONCEPTUAL MODEL III: DESIGN OF LEARNING ENVIRONMENTS

Contextual Goal:

> To develop a phased Ten Year Plan to eliminate ethnic and racial student isolation in the metropolitan area through voluntary collaboration of school districts by focusing on innovative educational programming developed by the participants, located on third sites, and predicated upon a comprehensive urban planning approach to school systems planning.

Active Goal: To develop innovative educational programming which will eliminate ethnic and racial student isolation through participatory planning and incentive mechanisms, and which plans and tests a variety of strategies for reaching this goal.

Operational Goals:

1. To define innovative learning environments which will reduce ethnic and racial isolation among students of the SMSA.

2. To test these learning environments and to evaluate their effectiveness in meeting these goals.

3. To develop an incentive system of encouraging collaborative planning to develop proposals about these learning environments.

4. To develop a voluntary collaborative programming through the incentive mechanism.

5. To develop a network of school districts, community groups, cultural organizations and ethnic and racial organizations to encourage voluntary collaborative efforts through programming.

Proposal Objectives/Stated Goals:

A. To solicit from school districts, artistic, scientific, industrial organizations and civic agencies proposals to plan and pilot significant learning environments for students of different economic, racial and ethnic groups.

B. To make available under subcontract $300,000 for the development and design of a wide variety of learning sites which test the feasibility of reducing minority group isolation.

C. To assure that all plans which receive funding meet the criteria stated above.

D. To assess the quality of each plan and its pilot efforts through an on-going evaluation process.

E. To inform interested "publics" of the progress of these activities by using the mechanisms established in the Community Participation section of this proposal.

Outcome/Products:

1. Curricula designed by minority groups to facilitate ethnic and cultural learning in multi-racial learning environments which are part of METROPATHWAYS, METROPAIRWAYS and METRO ETHNIC HERITAGE RESOURCE CENTERS.

2. Innovative learning environments have been piloted and tested. The experience of the interrelationships of multi-racial students provided unique learning situations which became a part of METROPATHWAYS, METROPAIRWAYS and METRO ETHNIC HERITAGE RESOURCE CENTERS.

3. A process of developing collaborative programs between diverse school districts and community groups led to the broadening of the horizons of both urban and suburban participants.

4. The assessment of these innovative learning environments was carved out with an analytic tool which can assist in repliability and expansion of the program.

DIAGRAM V - I -- continued/13

NOTES FOR THE SCHEMATIC DIAGRAM OF THE CONCEPTUAL FRAMEWORK Of The MPP Planning Process

CONCEPTUAL MODEL I:	SUPPORT RESEARCH
CONCEPTUAL MODEL II:	COMMUNITY PARTICIPATION AND PUBLIC INFORMATION
CONCEPTUAL MODEL III:	DESIGN OF LEARNING ENVIRONMENTS

The conceptual framework of the MPP planning process is experimental and tests the hypotheses through systematically constructed actions. It then evaluates the results in order to ascertain whether the hypotheses were valid. It is a process characterized as action research. It had certain specific objectives which were delineated in the federal grant Proposal. As a way of making explicit the underl desires, and as a way of elaborating the end results or products which were implicit in the Proposal, a framework was developed of three aspects of the Project. These models, stated in a comprehensive manner, provide a frame of reference for the Project: its goals, objectives and desired results. The description of the models in this Chapter which this Schematic Diagram presents describes the interrelationship between these three elements. The major concepts are defined below:

Conceptual Framework: is a frame of reference which sets the theoretical limits of an empirical work. It involves assumptions of values, judgements, matters of fact and policy decisions. It involves the description of the application of these phenomena in a systematic, comprehensive manner which examines these elements. It implies an interrelationship between goals, actions and outcomes in an interlocking fashion.

A Goal: is set of ends (an image or state of affairs which is desired to be achieved). A goal has active and contextual elements.

A Contextual Goal: is one which lies in the background. It arises from the operational development of the mandate of the Project. It embraced both the stated mandate of the Emergency School Aid Act, the elimination of ethnic and racial student isolation in the metropolitan area, and the methodology, hypotheses, assumptions and values implicity in the conceptual framework. This fundamental contextual goal is all inclusive and rarely changes.

An Active Goal: is one which has been singled out and made the focus of the activity of the component. It is drawn from the contextual goal. It is possible, when parts of the contextual goal are made apparent, that an active end will prove disfunctional to the contextual goal. In such a case, the more valued contextual goal is kept, and a variant of the active goal is formulated. The active end, in Model I, refers to the development of the technical and information bases of the Ten Year Plan; in Model II, refers to the development of a participatory planning process to develop the Ten Year Plan; and in Model III, refers to the development of incentive mechanisms for encouraging innovative education program planning for the Ten Year Plan.

Operational Goals: are a series of specific steps which achieve the active goal. These operational goals are developmental and directive. They are a way of evaluating whether the active goal can be met. They specify the areas of concentration of study or the particular methods of carrying out the studies. Operational goals are less explicit in their value commitment, relying as they do upon the broader contextual goal, and active goal, to supply their rationale for commitment and action.

Proposal Objectives/Stated Goals: are the objectives as stated in the Proposal. These sets specify in programmatic detail the way in which operational goals are to be met. Taken together with the operational goals, these two sets provide the detailed research design of the study.

Outcome/Products: are the results of the application of the operational and specific goal sets to the substantive issues of the study.

The third approach used by MPP represents more a strategy than a fully articulated model. It involved incentive programming by matching urban and suburban groups with money incentives to develop larger perspectives and innovative education programs. The strategy involved the funding of the MPP learning environments test projects for curricula development and pilot programs to eliminate racial and ethnic student isolation. These design of learning environments projects became the core programs upon which the METROPATHWAYS, METROPAIRWAYS, and METRO ETHNIC HERITAGE CENTERS, the Alternative Plan, were constructed.

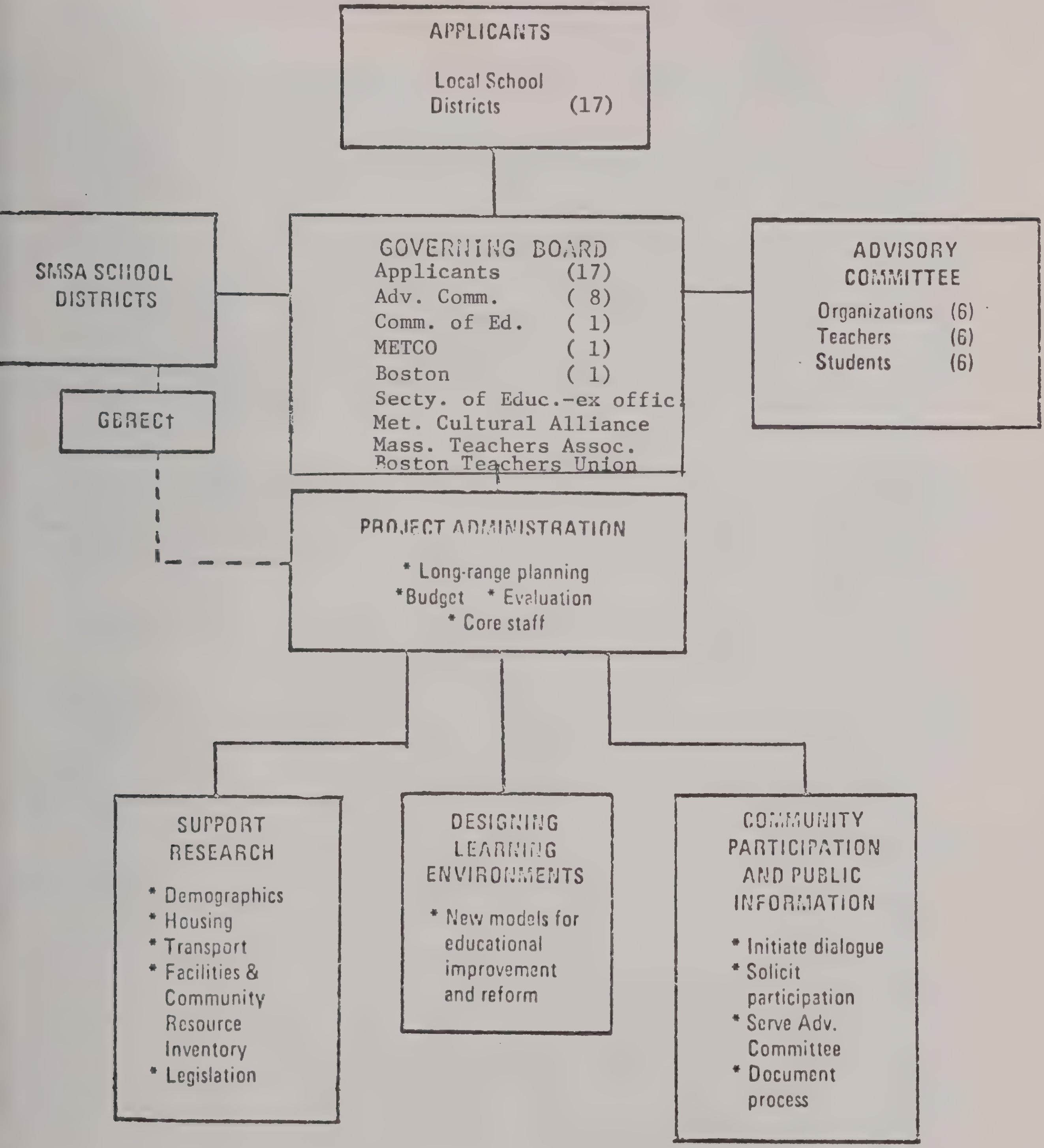
Each of these approaches reflect some mix of activities in response to the overall goals of the Project. Since it has been, in fact, a planning project, all activities have reflected planning priorities and objectives. The organization of staff resources to fulfill these goals reflected the approaches outlined above. The Support Research component bore the primary responsibility for the development of the information about education and related systems in the Boston area, thus utilizing action research as a basis for the planning and testing the feasibility of the plans. The DLE component was responsible for incentive programming through DLE projects. The Community Participation and Public Information component was responsible for stimulating program development through participatory planning of the DLE's and other programs including staff development, and for initiating an on-going dialogue throughout the metropolitan area. Together they reflect MPP's approach to planning, participation and program development. Diagram V-2 illustrates the Project's organization.

Before describing the Conceptual Models and their program component response it is useful to suggest some organizational changes which might improve future planning projects with similar goals and methods. As a general statement, the component division and central administration lent itself to separate operating functions. More specifically, a future planning project could instead include two divisions under one central administrator. One division could conceivably merge community participation and what had been the DLE component into a community staff and program development section. Testing educational programs and strategies to elicit community-based proposals could operate effectively as the same section. A second division, in response to a similar mandate, incorporates the Support Research Component into a technically based research and development, technical assistance, planning and evaluation unit. Action research, as has been seen, is most useful with a research unit available and skilled to evaluate information generated and data needed from outside the program itself, as well as developing internal planning mechanisms and processes.

Among the Central Administration staff were two experimental positions of the Field Agents. The conceptual framework for educational field agents is described in the Proposal.

DIAGRAM V-II

METROPOLITAN PLANNING PROJECT ORGANIZATION CHART


APPLICANTS
Local School Districts (17)
SMSA SCHOOL DISTRICTS
GBRECt
GOVERNING BOARD
Applicants (17)
Adv. Comm. (8)
Comm. of Ed. (1)
METCO (1)
Boston (1)
Secty. of Educ.-ex offic
Met. Cultural Alliance
Mass. Teachers Assoc.
Boston Teachers Union
ADVISORY COMMITTEE
Organizations (6)
Teachers (6)
Students (6)
PROJECT ADMINISTRATION
* Long-range planning
*Budget
* Evaluation
* Core staff
SUPPORT RESEARCH
* Demographics
* Housing
* Transport
* Facilities & Community Resource Inventory
* Legislation
DESIGNING LEARNING ENVIRONMENTS
* New models for educational improvement and reform
COMMUNITY PARTICIPATION AND PUBLIC INFORMATION
* Initiate dialogue
* Solicit participation
* Serve Adv. Committee
* Document process

† Greater Boston Regional Educational Center

The experience of the educational field agent is analogous to that of an agricultural extension agent. As education becomes more and more complex, the problems of the city become those of the country and the suburbs.

The New England Program in Teacher Education (NEPTE), which provided an impo tant impetus to the creation of a role for field agents in the Metropolitan Planning Project, has used educational extension agents successfully for several years. In a short memo, entitled "Notes on Extension Agent Roles, Selection and Training," NEPTE explained the extension agent as "one who will fulfill the functions of:

> a) processing information from source to where it is needed; b) making broad judgments about the appropriateness of specific resources for varying areas; c) serving as a human resource for knowledge about where such-and-such is happening; d) conducting or arranging meetings and workshops for training purposes; e) listening to a myriad of ideas, and problems and attempting to develop problem-solving concerns rather than mere problem-stating skills."

The MPP Proposal described field agents as "ombudsmen, diagnosticians, consultants, and inter-district workers." Implicit in the outline of their functions, however, were the following additional roles: resource specialists, linkers, coordinators, organizers, communicators, funding specialists and liaisons.

In addition, the Proposal specified that such people were to remain neutral in view of the constituencies:

> To ensure a continuing and neutral communication link between the Project and its overall constituency, field agents will report directly to the Director of the Greater Boston Regional Educational Center. The overall constituency of the field agents will be the SMSA school districts themselves rather than only the Project, Applicants, or the Governing Board.

Field agents formulated action programs on the basis of close relationships with Superintendents and school personnel in individual districts.

On the basis of the planning year's experience, the following general recommendations are made for this role:

1. Goal must determine role. If a project seeks to further collaboration between districts, or other state functions, then the role will demand a more impersonal relationship to district and groups than if the major goal is to promote collaboration between two schools. If a major goal is to aid with design and funding

of curricular projects to reduce minority student isolation, the field agent's role will be different than if the goal were to stimulate community participation so that minority students face fewer acceptance problems when transferring to a new and unfamiliar district.

2. Probability of success given goals to be attained. This would include familiarity with the barriers which may impede program success, knowledge of "key influentials" who have direct responsibility or influence upon decision-making, past experience with like projects, alliances and collaborative attempts previously tried, degree of readiness for change or alternative action, and determination of existing needs and priorities of the clientele involved. No single factor, however, is more influential than territoriality, since the agent's ability to gather valuable background information with some degree of depth will rely on the geographical area for which he is responsible.

   Dependent upon role and defined by goal, it may be important for the field agent to plan program action by listening to several varying viewpoints in a community. For example, if the role demands that the field agent diagnose and prescribe alternative solutions for effecting curricular change in a district, he or she must have familiarity with teachers, central office staff, and the superintendent in order to ascertain the need for kinds of resources to utilize; if the role demands that the field agent stimulate interdistrict business collaboration, he or she may operate on fewer communication levels necessitating only primary information sources, such as business managers and the superintendent. Whatever the goal, however, territoriality will determine the level and kind of communication between agent and clientele.

3. Based on goal, role, background information and available resources, the field agent must design a program strategy or plan of action. The first step in the creation of a planning strategy must be the development of a reliable and consistent communication system or network. If the field agent is to be viewed as a resource specialist and problem solver, his communication techniques may result in intermittent visits to a district, depending upon when his expertise is needed. If he is attempting to "sell" an idea, however, he may conduct regular visits, or arrange special meetings to promote his goal. The field agent's time must be apportioned according to client need and program goal; but this must be a flexible framework so that the agent can devote time to the creation of resource mechanisms with which to aid his clientele - often the act of "bringing the right people together" is the most important function of a field agent.

Other Central Administration staff were managerial and process roles.

These recommendations and the description of the Models, are intended to provide information useful to other potential metropolitan education planning programs in these and other regions. It is neither comprehensive nor totally self-contained; but it does suggest an approach which has been successfully applied in this region. Volume II, III, and IV present some of the supporting materials which have been utilized through this approach to develop the Alternative Plan: Metropolitan Education Programs.

The remainder of this chapter describes in some detail the Conceptual Models utilized in the planning process. These descriptions are founded on the goals of the Proposal and on relevant expansions and clarifying documents. The Models are discussed in succeeding sections and serve as a framework for action, outlining the direction used throughout all MPP activities. As with the general recommendations noted above, each section includes suggested strategies which were applicable to the Boston SMSA, and may be useful elsewhere.

CONCEPTUAL MODEL I: Support Research: Comprehensive Urban Planning Techniques Applied to the Public Education System

Introduction

The interrelationships of the urban educational system with other urban systems provides the conceptual basis of the Project's methodological approach. This interrelationship significantly affects the nature of the public school system. For example, the characteristics of the housing and job markets shape a town's population base and subsequent student population, as do the land use decisions, extent of social services, configurations of transportation network and migration patterns. In addition to influencing the school population, these factors also shape the educational goals, facilities and curriculum content of the school system. All of these interrelationships are influenced by community decisions and the interaction of persons within the SMSA.

The Conceptual Model: Support Research consisted of utilizing comprehensive urban planning techniques applied to the public education system and was used as a tool for education planning to meet MPP goals. This applied research approach is characterized as action research.

Background

The Boston Development Strategy Research Project published by M.I.T. in 1972, was a major multi-disciplinary effort to formulate an effective strategy for developing links between Boston and its suburban neighbors in order to deliver more effective and responsive public services. Among the recommendations was that the state play a role in providing metropolitan services as well as a role in encouraging intergovernmental collaboration when and where appropriate. The study also recommended that the federal government encourage city-suburban sharing of metropolitan burdens. The strategy was developed through the perspective of the the integral relationship between various urban functions such as schools, housing and transportation.

That study, as well as an earlier grant of the General Court of Massachusetts to the Massachusetts Advisory Council on Education (MACE), was in part, the basis of the Proposal funded by the Emergency School Aid Act: to prepare a feasibility study to determine whether metropolitan education planning and programming can be developed to meet the mandate of the elimination of racial and ethnic student isolation in metropolitan schools.

There is a complex relationship between the development of schools and the total development of the city, which implies a need for such planning. The planning must be accomplished by school authorities and other public and private agencies. The municipal and state governments must share responsibility for projecting goals and setting timetables and seeing that commitments are met in terms of educational priorities.

Framework

The approach of the Support Research Component has been to develop a framework in a systematic way which would relate the impact of such functional areas as education, housing patterns, economic bases, income, job market, transportation, environmental quality, land use, population characteristics, migration patterns, fiscal needs and resources, and social services (health, day care, public safety, and recreation) to the nature of school enrollment, curriculum, attendance patterns, teacher training and supply, revenues and expenditures, and educational goals and policies.

The objective of the Support Research Component was described in the Introduction of the Proposal:

> "to obtain information to understanding the problem in its social and economic context . . . focus on schools themselves and other community resources available for planning educational social policy . . . coordinate with a diversity of governmental units to draw from these agencies and institutions appropriate data."

Once this objective was met, the Proposal concluded that "intelligent planning" could take place for the metropolitan area.

The goals of the Support Research approach which were developed to carry out this mandate were outlined in Diagram V-I. The primary goal was to develop the data bases for the phased Ten Year Plan for the elimination of racial and ethnic student isolation in the metropolitan area. The operational goals, as discussed, were both articulated and implicit in the Proposal and presented as six mandated objectives to be met by the Support Research team.

The outcome or products of these goals and objectives became the foundation for the educational program recommendations of METROPATHWAYS, METROPAIRWAYS and the METRO ETHNIC HERITAGE RESOURCE CENTERS. The information developed was the basis for the proposed expansion of these programs and led to the governance recommendations of voluntary collaboratives of school districts. The information and the planning process itself when allied with the information gathered through the participatory planning mechanisms, task force meetings, surveys, and DLE proposals form both the conceptual and cognitive bases of the Alternative Plan described in Part Three: OPTIONS.

Objective A

Within this planning process, the Support Research team first developed a data-gathering network, located the sources of relevant data and assessed its availability. The feasibility study was mandated to utilize secondary data source information. The available data were then reviewed and an initial profile of both the communities and their schools was developed. An analysis of this profile produced a systematic statement of the needs, problems and issues which had to be met in order to develop the phased Ten Year Plan. Fox example, there was serious difficulty in locating linguistic minority children, since they are very often not registered in school. Therefore, the Research team met with the linguistic minority members of the Metropolitan Planning Project Advisory Committee to attempt to develop a method whereby information could be found which would give some indication of the location of these children. Simultaneously, the Research team gathered together other more traditional variables which acted as societal indicators such as U.S. Census information about Spanish-speaking families, recent migration trends, dwelling unit tenure by race or Spanish surname, and membership in bilingual educational programs. All of this information contributed to meeting the goals of the research effort: to systematically and comprehensively identify minority group student isolation and to identify and describe the characteristics of these student groups and the communities within which they live. This data became a basis for a needs assessment which led to the development of the educational program recommendations.

It is within this planning structure of stated goals and objectives and with the application of this methodology that the Support Research team proceeded with the research objectives of the Project. To meet objective A, a data-gathering network was begun by meeting with other agencies engaged in different aspects of metropolitan planning. Several strategies were utilized to initiate this network. Formal contacts were established with federal, state, regional, and local government and quasi-governmental agencies and minority and ethnic organizations which are metropolitan in focus or in service population, to develop an open information data exchange and supply connecting links with these agencies and organizations (see Table V-1). On a limited basis, bills of the Massachusetts General Court which involved aspects of metropolitan education were monitored. The Massachusetts Advisory Council on Education coordinated a special education demography study for MPP and the State Department of Education, to identify the metropolitan area minority group students of low incidence handicaps and to promote an urban test model of cooperation among school districts for mandated programs under Chapter 766, the Special Education Act.

The Support Research Coordinator represented MPP on the Governor's Commission on School District Organization and Collaboration and the Massachusetts Business Task Force. MPP co-sponsored a conference on educational collaboratives and citizen participation with the Governor's Commission in the Spring. The Coordinator also maintained a liaison with other metropolitan wide studies in the Boston area such as the Governors Task Force on Metropolitan Development.

METROPOLITAN PLANNING PROJECT TABLE V-1

TYPOLOGY OF DATA-GATHERING NETWORK: OBJECTIVE A

Governmental Agencies

Agency	Functional Responsibility											
	Education	Economic	Social Services	Housing	Health	Transportation	Public Safety	Recreation and Culture	Environmental Quality	Fiscal and Budget	Planning	Legal
U.S. Department of Health, Education, and Welfare, Office of Civil Rights	X											
U.S. Department of Health, Education, and Welfare, Office of Economic Opportunity	X	X										
U.S. Department of Housing and Urban Development				X							X	
U.S. Office of Social Security Administration		X	X									
U.S. Bureau of Labor Statistics		X										
Federal Reserve Bank		X								X		
Center for National Education Statistics	X											
National Science Foundation	X											
U.S. Small Business Administration		X										
Governor's Task Force on School District Consolidation	X											
Governor's Office of Policy and Program Development											X	
Governor's Task Force on Metropolitanism											X	
Governor's Commission on Substate Regionalism											X	
Governor's Commission on Law Enforcement							X					
Mass. Bay Cooperative Data Study	X											

METROPOLITAN PLANNING PROJECT TABLE V-1--continued/2

TYPOLOGY OF DATA-GATHERING NETWORK: OBJECTIVE A

Governmental Agencies

Agency	Functional Responsibility											
	Education	Economic	Social Services	Housing	Health	Transportation	Public Safety	Recreation and Culture	Environmental Quality	Fiscal and Budget	Planning	Legal
Mass. Dept. of the Attorney General												X
Mass. State Department of Education	X											
Mass. State Office of Children	X											
Mass. State Office of the Secretary of Education	X											
Mass. Advisory Council on Vocational - Technical Education	X											
Mass. Advisory Council on Education	X											
Mass. State Division on Employment Security		X										
Mass. State Office of State Planning and Management											X	
Mass. State Department of Human Services			X		X							
Mass. State Department of Public Works						X	X					
Mass. State Department of Labor and Industry		X										
Mass. State Department of Commerce and Development		X									X	
Mass. State Department of Community Affairs											X	
Mass. State Department of Mental Health					X							
Mass. State Department of Public Health					X							
Greater Boston Health Planning Council					X							
Mass. Department of Corporations and Taxation										X		

METROPOLITAN PLANNING PROJECT TABLE V-1--continued/3

TYPOLOGY OF DATA-GATHERING NETWORK: OBJECTIVE A

Governmental Agencies

Agency	Functional Responsibility											
	Education	Economic	Social Services	Housing	Health	Transportation	Public Safety	Recreation and Culture	Environmental Quality	Fiscal and Budget	Planning	Legal
City of Boston Public Facilities Department											X	
Greater Boston Regional Education Center	X											
University of Mass., Amherst	X											
Metropolitan Council for Educational Opportunity, Inc. (METCO)	X											
Mass. State Office of the Secretary of Transportation						X						
Mass. State Office of the Secretary of Manpower		X										
Mass. State Office of Banks, Savings Banks Examinations										X		
Mass. State Office of Administration and Finance										X		
Mass. State Department of Natural Resources								X	X			
Massachusetts Bay Transportation Authority						X						
Mass. State Commission for the Blind			X									
Mass. Housing Finance Agency				X								
South East New England Study											X	
Metropolitan District Commission								X	X			
Metropolitan Area Planning Council											X	

METROPOLITAN PLANNING PROJECT TABLE V-1--continued/4

TYPOLOGY OF DATA-GATHERING NETWORK: OBJECTIVE A

Governmental Agencies

Agency	Functional Responsibility											
	Education	Economic	Social Services	Housing	Health	Transportation	Public Safety	Recreation and Culture	Environmental Quality	Fiscal and Budget	Planning	Legal
City of Boston, Office of the Mayor, Mayor's Assistant for Education	X											
City of Boston, Office of the Mayor, Mayor's Office of Human Rights			X									
Boston Redevelopment Authority											X	
Boston Model Cities											X	
Action for Boston Community Development (ABCD)	X										X	
Boston Secondary School Commission	X											
Local School Districts	X											
Office of the Secretary of the Commonwealth of Massachusetts												X

METROPOLITAN PLANNING PROJECT TABLE V-1--continued/5

TYPOLOGY OF DATA-GATHERING NETWORK: OBJECTIVE A

Non-governmental, Non-profit Agencies, Minority Group Organizations

Agency	Functional Responsibility											
	Education	Economic	Social Services	Housing	Health	Transportation	Public Safety	Recreation and Culture	Environmental Quality	Fiscal and Budget	Planning	Legal
Education Development Center	X											
Massachusetts Teachers Association	X											
Boston Teachers Union	X											
Metropolitan Cultural Alliance								X				
New England School Development Council	X											
Institute for Educational Services	X											
Institute for Learning and Teaching	X											
Massachusetts Institute of Technology		X		X								
Educational Facilities Laboratory	X											
United Community Services			X								X	
Central Mass. Citizens Involved in Education	X											
City Wide Coalition	X											
Project H.O.P.E.											X	
NAACP												X
PUENTE	X											
Chinese Community Center			X									
Boston Indian Council			X									
Spanish Alliance			X									
Boston Area Student Advisory Council	X											
League of Women Voters	X											
Harvard University	X											
Norumbega Associates									X			
American Civil Liberties Union												X

The procedures for a permanent information system to disseminate research data has been developed as a product of the Objective A research effort; it will provide easy access for information for school districts, community groups and other interested persons and agencies. The information system will also provide a feedback mechanism for evaluation and updating of data. The integration of the research data with the community participation information and Design of Learning Environments experimental projects led to the development of METROPATHWAYS, the structural educational program for secondary school students. The METROPATHWAYS is an illustration of the formation of an action research program and is an example of the result of the networking between MPP and the metropolitan-wide agencies which have been involved. It represents great concern about the energy crisis and the need of secondary school students for mobility and for innovative programming which will prepare them for careers and future learning upon graduation.

Objective B

Once the data-gathering network was underway, work on the other objectives was begun. The development of the Community Profiles, Objective B, which became the device by which other research efforts were organized, integrating the conceptual notions previously stated. The focus of this research effort was multileveled and multifaceted. The information developed from these profiles provides the basis for the program recommendations which appear in this plan. It is important to note, however, this information can be utilized not only in developing a phased Ten Year Plan, but in other regional and local governmental policy planning and educational programming efforts as well. The 79 profiles themselves are in Volume III and the Comparative Tables of the 78 municipalities which review over 100 variables are found in Volume II, PART TWO: TECHNICAL RESOURCES. The following is a descriptive model of the development of the Community Profiles as it was carried out in this planning year. It can be applicable to other regions of the country, when modified appropriately.

How to Develop Community Profiles

Introduction

The development of the research design which formed the Community Profiles became the organizing tool for the Support Research Component; and its completion was a key element, along with the participatory planning approach, in the conceptual framework of this feasibility study. The development of a set of Community Profiles for the Boston metropolitan area was mandated in the Proposal, Support Research, Objective B:

> "To develop profiles and analyses of racial, ethnic, economic, and education characteristics of the metropolitan area and of its individual communities."

The socio-economic profiles of each community can be developed after the following characteristics are investigated and data relating to those characteristics, which among others, will be gathered and interpreted:

1. Social composition of the population in each district; ethnic and racial composition; education levels of the adult population; concentrations of non-English speaking population.
2. Economic characteristics of the population; household income distributions, unemployment rates; occupational levels.
3. Population growth rates; age distribution of population; average family size; birth rate; in-and-out migration trends.
4. Economic characteristics of the district; property valuations; school tax rates; land use trends; commercial and industrial developments.
5. Educational characteristics of the district; school expenditures by category; federal aid received; curriculum offerings; staff characteristics; student achievement; local educational goals."

Background

The Support Research Component was operationally defined to include the Component acting as a supportive service to the rest of the project, in addition to meeting its own objectives. In order to meet the Project's daily informational needs as well as to act as a coordinating mechanism for all the other research, the Community Profiles were converted from subcontract status in the Proposal to an in-house function with Office of Education approval.

The Community Profiles' mandate was an encompassing one and the information needed to accomplish the task was essentially the expected data needs of the feasibility study. The $36,000 budget line was supplemented by some of the $15,000 allocated for Computer Time-Sharing. The Community Profiles was directed by the Research Associate, under the leadership of the Support Research Coordinator, with data collection and analyses accomplished by a staff of part-time graduate students in the fields of urban planning, education, social work, mathematics and political science.

Development of the Profiles

A series of initial decisions were made which fundamentally shaped the Profiles. These decisions, both theoretical and practical, were based on the Proposal itself, the perceived needs of the communities as communicated through community participation meetings, intellectual conceptualizations of the staff, and an initial understanding of what was meant by "the diminishing or elimination of minority group isolation among school age children."

The primary decision was that the data gathered by the Community Profiles team would be quantitative data gathered from secondary sources. This decision was based on many factors, among them: the data mandate implication of this direction; the constraints imposed by time and money; the lack and non-utility of soft data; and a belief, based on the number of agencies and governmental departments dealing with education and education related information in the Boston area, that there existed a foundation of valid, reliable, comparable information on which an interrelated set of variables could be constructed. This final notion proved to be incorrect - much of the primary data in the Massachusetts agencies are incomplete and inaccurate. At the initiation of the study, however, the quality of the data was assumed adequate, and on this basis, the study was defined as a statistical secondary data source project.

In a related decision, it was determined that the data would be derived almost entirely from records of centralized public and private agencies. Again time and monetary constraints in dealing with 78 cities and towns and 83 school districts were a major factor. Moreover, it was believed that a centralized agency was more likely to produce the necessary information than the local school districts. In fact, when a letter was sent requesting some specific data from the local units, less than a fifth of these units responded with the data.

While the mandate speaks of gathering certain data for the Boston Standard Metropolitan Statistical Area (SMSA) communities, it does not define "communities." A number of possible definitions were considered by the team. These definitions included: the cities and towns; the school districts; the racial and ethnic groups; the sub-municipality units most usually referred to as communities or neighborhoods by sociologists and planners, or a combination of these. In order to produce policy-relevant information and because of the need for relatively easily accessible information, the definition of school districts was chosen; this definition offered the greatest flexibility.

The feasibility study was originally to be two years in length, and the research design designated the first year for social demographic, economic, and urban function or education related data to be gathered on a municipality level, and education data collected on a school district level, which almost always corresponded to the municipalities, and similar data on an individual school level. Educational data only were to be gathered on a regional school basis. In the second year, profiles of the racial and ethnic groups of the Boston SMSA were to be developed, and social demographic, economic, and urban function data were to be developed in correspondence to individual schools, by roughly approximating "neighborhood communities" through a procedure of compiling census block groups (see Diagram V-III).

Educational information was gathered on a school district basis for the Boston SMSA as defined by the 1970 U.S. Census. Funding for the metropolitan section of the ESAA of 1972 required approval action by two-thirds of the school districts in the SMSA. The following is a list of school districts which were polled on the MPP proposal formulated by the Greater Boston Regional Education Center. (GBREC). The list includes only those school districts whose entire student body resides within the SMSA. Regional school districts which have students from municipalities within the Boston SMSA but also have students in municipalities which lie outside the SMSA were therefore not included in this feasibility study (see List II-One.)

The last basic decision was the interpretation of the stated data mandate. Approaching the implied spirit as well as the stated objective of the mandate, a comprehensive urban planning approach to the Community Profiles was taken. By viewing the assignment from such a perspective, all the data encompassed by the mandate were gathered; moreover, the scope of study was enlarged to include such variables as: land use patterns, transportation services, social services, and other relevant characteristics. This perspective was in accord with the Support Research action research applied methodology. Developing the Community Profiles in a planning context employed a rational, inductive study methodology.

Methodology

The basis of this planning methodology is the development of policy and programs which come out of an investigation whose foundation is a clear set of statements of objectives, goals, and values. Such a methodology was employed in the development of the Community Profiles.

An objective in this sense is the comprehensive position or mandate which guides the work process. Goals are sub-objectives which are statements of operational positions. Though no explicit statement of values has ever been made regarding the Profiles, there are clearly implied values in the objective and goals statements.

The specific objectives and goal statement was developed over the period of the entire year. Its basic concepts have not changed, although they have become more explicit as the study has evolved through a more precise definition of the role of the Community Profiles in the development of the Ten Year Plan; a realistic sense of what could be done in the time allowed; the availability and state of information; and the utility of information as related to specific alternatives of educational programming. The Objective B specific goal statement is:

Objective: To provide an informational base to develop a phased Ten Year Plan for the elimination of racial and ethnic isolation among students in the Boston SMSA.

Goals:

1. To systematically and comprehensively identify, describe, and analyze minority group student isolation and its characteristics, so as to suggest means of educational programming which leads to the reduction of that isolation;

2. To systematically and comprehensively identify, describe and analyze communities in the Boston metropolitan area and to identify issues and problems as well as strengths and weaknesses of various forms of voluntary interdistrict collaboration as a means of reducing minority group student isolation;

3. To test and analyze the feasibility of various educational programs to reduce minority group student isolation;

4. To collect and analyze data on an interrelated basis in an effort to promote an understanding and appreciation of the relationship of diverse variables as an approach for comprehensive metropolitan planning;

5. To act as a catalyst in the promotion of an improved metropolitan data bank and network to be sustained on a permanent basis and to be utilized for the development of metropolitan education policy and program planning.

Operational Processes

The interpretation of the mandate of Objective B was broad, that is, it was taken to mean that an information center was to be created for statistical data which would be directly and indirectly relevant to educational programming. However, the task became a much larger one which dictated the use of certain research methodology. Instead of making an initial decision about the kind of data to obtain, which is what is done in a more academic approach in order to test hypotheses, the first step was to identify the universe of available data. In this, Objective B was linked closely to Objective A. The operational phase can best be described in five steps: Data Search, Data Collection, Data Stop, Data Formating, and Data Analysis for educational programming.

1. Data Search - After initial scanning of traditional data such as the U. S. Census, the Research team contacted persons and agencies it considered likely to have relevant statistical information. Persons suggested by these initial contacts were then approached. In this, an attempt was made to use the knowledge of persons in a particular field to build the data-gathering network.

2. Data Collection - After the initial contacts were made, a good sense of data availability was developed. Building on the notions of potential relevance, decisions were made about what data ought to be collected. A series of research designs was developed which confirmed an intensive review of the data for its qualitative and quantitative capacity and its usefulness in the educational policy decision to be made by the Project.

3. Data Stop - At midyear a data stop was instituted; all information and sources were coordinated and measured against the established goals and objectives. At that time, gaps in knowledge were identified. The possibilities of further collection were canvassed and decisions made about which aspects of data collection to continue.

4. Data Formating - After the data were collected, decisions were made about the quality of the available information. Data verification took place; information which proved to be inconsistent or out of date was discarded. At this point, a format was being developed to present the information in the most coherent and usable manner possible. Once in this form, the data was subject to elementary statistical manipulations of finding percentages and ranking by quartiles in order to make possible preliminary analytic assessment.

5. Data Analysis for educational programming - Based on the data collected, analyses of each city and town in the Boston SMSA were developed as was information on each public school. These analyses served as the basis for the recommendations of potential collaborative groupings, for testing the feasibility of the Formula Plan and the Alternative Plan, and in the basic structuring of the METROPATHWAYS and METROPAIRWAYS programs.

These phases were not separate steps; there was an overlapping of steps depending both on the functional area being studied and the time sequence in each area. It was decided that in the first phase, the data search and collection would be conducted by part-time graduate research assistants. They became responsible for the specific functional types of data in their professional discipline.

The sources of information were generating new data at the same time that the collection and formating phases were ongoing. This led to a phased, iterative research methodology in an attempt to maximize resources and to update the profiles as they were being developed. By collecting data on many geographic levels, a multidimensional overview or total perspective of what the area was like was developed through technical capacities. Since data from many different functional areas were collected, the patterns of systems interacting within particular cities and towns were analyzed; similarly by viewing any particular functional area or variable in isolation, comparative analysis between communities became possible. Due to this empirical validation, the Community Profiles team developed two separate products: a series of comparative tables for all school districts which would allow for interdistrict comparative analysis of educational and education related variables and a set of Community Profiles composed of individual school profiles and school district profiles which serve as a basis for intradistrict analysis of functional interaction, for example housing, the tax base and education.

Tools and Techniques: Research Design

The initial conception of the Community profiles is expressed in its basic document, "The Community Profiles Research Design." The design served as the basic framework for the Profiles processes. It was revised throughout the collection and analysis phases of the project. The fourth and final Research Design is found in Volume IV. It served as a guide for analysis, organization and presentation of information.

The Research Design was based on the following geographic dimension and functional area design:

DIAGRAM V-III

PRELIMINARY INFORMATION MATRIX
for 1973-74 to 1974-75

Geographic Area	Social Demographics	Education Related	Educational
SMSA	I	IV	VI
SCHOOL DISTRICT	II	V	VII
COMMUNITIES SUB-DISTRICT	Next Year	Next Year	Next Year
SCHOOL	III	Next Year	VIII
STUDENT (GEOCODE)	Next Year	Next Year	Next Year

Each cell of the matrix was further explicated through the use of the following categorization:

The Research Design was drawn along the following four dimensions:

1. Research area (RA)
2. Variable (V)
3. Indices (I)
4. Source of information (S)

The development of the operational Research Design led to guidelines for all data gathered through the application of the matrix as follows:

1. The information is to be gathered for the total SMSA population as well as these particular groups:

   a. Blacks;
   b. Hispanic, Puerto Ricans and Spanish Surnamed;
   c. Asian-Americans;
   d. Native Americans;
   e. Whites in total and/or ethnic groups as:

      1). Italian-Americans;
      2). Irish-Americans;
      3). Portuguese-Americans;
      4). Jews;
      5). Others.

2. Trend data for all variables will be obtained if possible;

3. SMSA town and ethnic group data comparisons will be made where relevant;

4. Projected data should be included whenever possible along with an evaluation of the projection;

5. Support Research information other than outlined in this Research Design will be integrated into the Community Profiles, for example, the Data-Gathering Network, Projected Enrollment Estimates and the Community Resource and Facilities Inventory.

Evaluation

The development of a set of Community Profiles as in in-house research capability is essential to the preparation of a plan of this magnitude. The primary worth of such research can be measured in its ability to be utilized for policy decisions relating to metropolitan educational program planning. The Community Profiles are the basis of the development of the Ten Year Plan; as such it should have begun prior to the work of the other components of the Project. This would have allowed for the production of more complete, finished materials into the on-going, iterative planning process. The goals of the Profiles to meet the informational needs of other Project components and to formulate analyses leading specifically to political strategies and policy recommendations despite the cut of from two to one year time span, have been met.

Further Research

The Community Profiles, like other parts of the MPP Ten Year Plan, are only a beginning of the work that needs to be done in this area. Expansion and updating of the data collected, and more extensive examination of its implications would certainly increase the Profiles usefulness.

Clearly, information developed on an annual basis needs to be updated constantly, in order to remain relevant. Computerization of the Profiles would make this process easier as well as making the data more accessible both in the sense of being available to an increased number of people and in the sense of being in a form so as to more readily allow for extensive quantitative analysis.

Secondly, much of the information developed this year on a school district level should be developed onto an individual school basis, for specific program planning purposes. Many of the education measures, particularly the fiscal aspects of the system, when studied on an individual school basis might provide insights into the equity of SMSA schools. Much of the socio-economic data used in structuring the MPP program recommendations was extrapolated from the 1970 U.S. Census; this information could easily be developed for individual schools by matching their attendance catchment areas with Census block groups.

Finally, further analysis of existing information could take place by combining the collected data to create new measures. For example, one could compare the number of acres of residential land in a municipality to the number of persons living there, thus measuring the residential density of the community. In some instances, the Support Research team has assisted other agencies in focusing on broader information typologies of data and collection.

Objective C

The Enrollment Projection Model (Objective C) was contracted to OSTI (Organization for Social and Technological Innovation Inc.).* They utilized a large number of variables on an econometric model to test specifically whether education related measures could be utilized to predict two forecast categories:

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*This précis is drawn from the final report in Volume IV.

1. Enrollment of white and non-white pupils;

2. Elementary and secondary school enrollment.

The demand variables which they hypothesized were significant included: school age population; change (total and non-white) in family income; educational level; industrial employment; housing conditions; and effective tax rate. The supply variables included: student/teacher ratio; and effective tax rate.

The enrollment projection study was designed to provide MPP with estimates of the elementary/secondary school enrollments for school districts within the Boston SMSA for the period 1973-83, and with an analysis of some of the socio-economic variables which influence the size and racial composition of school enrollments. The results of this study provided one component of information needed in the task of developing a Ten Year Plan to eliminate racial and ethnic isolation in the schools of the Boston SMSA.

Methodology

While projection methodologies are quite varied, they may be categorized into two broad types: those which attempt to identify and describe a trend in a series of empirical data and those which develop a model specifying potential explanatory factors underlying the determined trend in a series of empirical data. The difference between these two approaches to the problem of forecasting is profound: in trend analysis, no matter how accurate the projections might in the future turn out to be, there is no means of understanding or identifying those factors which underlie and determine the particular trend of the empirical data. In econometric model building one attempts to develop models which specify and test the significance of a set of socio-economic factors (or variables) which explain the nature of the described trend. In effect, by identifying the factors and interrelationships which have been important in determining past trends of school enrollment or anything else, one can begin to consider what is likely to happen in these areas in the future and hence increase understanding, control, and probable accuracy in projecting particular future events.

In addition to utilizing standard statistical trend extrapolation techniques, econometric models were developed to answer the following questions:

1. What are the factors affecting the enrollment size of each school district? To what extent do those socio-economic variables, such as the housing conditions, industrial employment, and income influence the enrollment?

2. What are the factors affecting the white/non-white enrollment composition of each school district? To what extent do those socio-economic variables such as the housing conditions, industrial employment and income, influence the racial composition?

3. What are the factors that affect the non-white population changes which in turn influence the non-white enrollment size?

The following socio-economic factors were analyzed to determine their influence on the size and composition of public school enrollment: size of school age population (ages 5-19); population change from 1960 to 1970 (total and non-white); median family income (as an index of the economic base of a town and, in particular, of the economic ability of parents to send their children to non-public schools); median educational level (as an index of parents' aspirations and preferences for their children's education); industrial employment (as a factor in migration size and composition and hence school age population size); effective tax rate (as an index of both the price of education and the public school resources of a school district), and student/teacher ratio (as an indirect measure of school capacity). Choice of these particular variables and how they were defined was determined by theoretical considerations and availability of reliable data. While a principal priority was to develop projections for various racial and ethnic groups (Caucasian, Black, Asian American, Hispanic, Puerto Rican, Native American), the only time-series data available was for the broad categories of white/non-white pupils. Enrollment data was necessarily collected from a centralized source (The Massachusetts Department of Education, Bureau of Educational Information, Research Division) given the time constraints of the study.

Results and Utility for School Administrators and Other Educational Policymakers

The study suggests that factors such as size of the school age population, total and non-white population change, education level of adults and housing conditions within a school district, all play a role in determining the size of the white and non-white public school enrollment in the Boston SMSA. Other factors which we have not been able to explore in this study -- such as subsidized housing, public housing allotments, use of open land, transportation (mass transit and highways and secondary roads) -- may also have a significant impact on the size and composition of student enrollments within the Boston SMSA. Further work is needed to determine the impact of these and other factors.

In summary, the study suggests that there is, as expected, a strong positive relationship between the size of the school age population and the total public school enrollment. Further, again as expected, there is a positive relationship between the change in size in the total population of a school district and the size of its total public school enrollment. In addition, we found a negative relationship between the amount of sub-standard housing within a school district as the size of its total enrollment decreases. We also found a negative relationship between the amount of sub-standard housing within a school district and the size of its total non-white enrollment. This means that as the amount of substandard housing within a school district increases, the size of its total enrollment decreases and the size of its non-white enrollment also decreases, though proportionally less, leading to a proportionally increasing non-white enrollment. Finally, we found a strong negative relationship between the median educational level of adults and the size of total public school enrollments. That is, as a school district's median adult educational level increases, the size of its total public school enrollment decreases.

Objectives D and E

A critical part of the Support Research documentation for the educational program planning development was the Inventory of Community Educational Resources which was contracted to the Education Collaborative of Greater Boston (EdCo) meeting objectives D and E. In this study, a model community resource and educational facilities inventory was tested and evaluated. As with the enrollment projection model, the product of this inventory is a systematic tool which can be replicated throughout the metropolitan area to identify people, programs and facilities which could become the third site location of innovative educational programs to eliminate ethnic and racial student isolation in the city and suburbs. A How to Conduct an Inventory of Educational Resources in Your Community booklet, accompanying technical materials, a Report on a Pilot Study, as well as a final report, can be found in Volume IV. The planning process utilized to conduct this survey is summarized below.

The initial step that a community group, school, or library would take in developing an inventory of educational resources for their community would be to discuss such issues as: a feasible time schedule for the survey; the costs that would be incurred and where funds to support this project would be obtained; and the number of staff members that would be needed. The next step would be to survey the people and programs in their community who could serve as educational resources. The following ten steps have been outlined for implementing this survey:

1. Organize Inventory Staff: The staff has to be able to organize and coordinate the overall work of the survey, train and supervise interviewers, and supply public information on the survey;

2. Planning: The agency conducting the survey must carefully design its plan of action including assigning of specific responsibilities and deadlines and deciding when the various phases of the

work will begin and end;

3. Publicity: The largest possible number of community residents need to be informed of and involved in the resource inventory. Publicity through newspapers, radio, television and school and church bulletins should be used to announce the inventory explains its intent and benefits and announce when interviewing will begin;

4. Identification of Resources: This task should begin with the development of a list or card file of suggested resources showing names, phone numbers, and addresses. School district personnel, directors of youth groups, heads of civic and business groups, governmental agencies, cultural institutions, churches and synagogues, and community agencies are all suited to provide information on potential program and people resources;

5. Selecting Interviewers: The agency should attempt to find experienced interviewers for this task. If students are used for this purpose, care should be taken to assure that they are very familiar with the technical requirements of survey work. The number of interviewers needed will vary by location. In general, an interview takes one hour and six interviews is the likely maximum number per person per day;

6. Scheduling Interviews: Each "lead" obtained during the identification process should be contacted directly and be informed of the purpose of the inventory and the minimum requirements for people and programs. If he (or his program) meets these requirements and consents to an interview, an appointment can be made;

7. Training of Interviewers: Interview forms and training guides were devised by EdCo. The initial training session for interviewers should continue until each interviewer is familiar with both the Interview Forms and Training Guides. Leaders of these sessions should review techniques for interviewing, conduct role playing simulations, and discuss the use made of the interview data. After the first two forms have been completed, they should be reviewed by the person in charge of training;

8. Data Gathering: The time period for actual interviews should not be longer than six weeks. The Interview Form should be used as a script and the interviewer should record the respondents' comments without editing them;

9. Editing/Verification of Interview Forms: Every completed form should be checked for accuracy and completeness. Verification involves telephoning each respondent and double-checking selected items as a way of insuring accuracy;

10. Completed Interview Forms to MPP: It should take approximately

ten weeks to complete the first nine tasks. At the end of this time the local agency should deliver all completed and verified forms to MPP.

After receiving these forms, MPP will develop handbooks that can be used by parents, students, heads of community agencies and school personnel. This handbook will provide easy access to a variety of programmatic data including the focus of activities of each program, when it is held, and for which age group it is intended. The overall purpose of the Inventory is to develop a systematic, comprehensive base of information to further interdistrict cooperation and the establishment of racially/ ethnically diverse educational programming. In its role as the central implementing agency, MPP will develop a computerized inventory information system. The local agency would provide information throughout the year to community persons concerned with educational opportunities in their area; the MPP information system would be used by teachers and students involved in the pilot programs which MPP will sponsor. In order to keep this information system current, a formal update process should be completed once a year.

Objective F

The last objective, F, drafting of legislation to remove obstacles to metropolitan collaboration, was to be a product of Support Research, Community Participation, and the Design of Learning Environments Components. The draft legislation was further to be the result of an analysis of organization models which was to be developed in several strategic ways. The first was a review of the statutes of metropolitan educational governance organizations in the United States and Canada and a literature search of the variety of information available upon this issue. The second was a review of the current Massachusetts enabling legislation of metropolitan forms of school district governance including consolidation of small districts; voluntary collaboratives as EdCo; state supported interdistrict programs as METCO; and the magnet school concept of the Experimental School System of the Commonwealth of Massachusetts. The Support Research team also worked very closely with Governor Sargent's policy council in supplying information about the metropolitan area and the kinds of innovative integration programs available as exhibited through the Design of Learning Environments proposals. Briefings were given to several legislative committee staffs which focused upon the data collected and the potential programs developed. Meetings were held with the Bureau of School Reorganization and Collaboration and the legislative arm of the State Department of Education which led to the submission of jointly developed urban-suburban metropolitan program legislation to the State Board of Education and then to the Massachusetts General Court, as will be discussed in Chapter X. Previously, in 1974, a collaborative trust law was passed. Other legislation developed under contract by the Metropolitan Cultural Alliance concerning new fiscal means of program funding for institutions and school districts is found in Volume IV.

Prior to the drafting of any legislation, and as a part of a joint organization model study conducted with the Greater Boston Regional Center, a conceptual model was developed to analyze the functions of education. Constraints prevented the completion of this study; nonetheless, the hypothesis that different educational functions relate to different governance levels, both mandated and voluntary, should be further examined. This is an empirical approach to the development of organizational models for governance which, when applied to current practices, would identify obstacles to metropolitan collaboration.

As a part of the process of identifying obstacles to metropolitan collaboration, position papers on key issues were developed. Four prime issue areas were identified: governance, tax policy, transportation and housing. A fifth area of interest, education trends, was the subject of a paper which was incorporated into the Alternative Plan. These areas were examined as to their relationship with the education system and the elimination of racial and ethnic student isolation. Some of the areas were explored from several perspectives; in particular the two professionals who have dealt with transportation and education in the context of social change wrote papers from their own different positions.

The suggested outline for the policy papers was:

I. Contextual Statement

A statement of the author's perspective and his/her framework of how transportation, housing, tax policy, and governance relates to education and the elimination of racial and ethnic isolation among school age children in the Boston metropolitan area.

II. The Current Situation

A description of trends in the Boston area based on a short historical perspective and a fuller description of the current situation including: an identification of the actors and their roles; a discussion of demographic and socio-economic characteristic influences; and a discussion of existing legal constraints and incentives.

III. Future and Recommendations

Based on an analysis and the implication of the current situation, a scenario of the most probable future should be drawn. Compare this future to the Metropolitan Planning Project's mandated goals and values. Based on this comparison, make recommendations as to changes needed in both education and transportation or housing, tax policy and governance relating to: enforcement of current laws, new legislation, administrative actions, and delivery of services which would impact the current trends identified and make them closer to our objective.

IV. Summary

A one page summary should be included; this will serve as an introduction to the reader.

Objective F, because of the time constraints, the prior information needed for its completion, and the politicization of the project, was the least satisfactorily met objective of the Support Research Component. Nonetheless, its impact was strongly felt. It acted as the policy implementation instrument for the research and the program development which took place during the planning year. The techniques employed in carrying out this objective will be continued during the current operational phase of the Project.

Summary

In Conceptual Model I Support Research utilized comprehensive urban planning techniques to develop a broad based data system from which to plan for the development of metropolitan education programs which would meet the mandate of the elimination of racial and ethnic student isolation. Several assumptions underlie the Model; a chief assumption was the belief that education systems are a part of the public service delivery systems which serve the community. As such, it both influences and is influenced by a variety of factors in the community including fiscal structure, demographic composition, economic base, land use patterns, enrollment characteristics, staff characteristics, cultural differences, and physical facilities. Since this interconnection is evident, it became imperative to understand these different factors and analyze them within this framework so as to better plan to meet the MPP mandate.

The Support Research team utilized a variety of strategies to meet these goals; some were mandated by the Proposal. The nature of the research was strongly influenced by the demand that all data gathered come from other sources; this produced a secondary data study with all the accompanying benefits and detriments usual to such a study. Among the benefits was the development of a Data-Gathering Network which opened communications between different governmental agencies and alerted these agencies to the relationships between their work and education systems. This strategy facilitated an ease of access to the data of most of these agencies which assisted in the development of the Community Profiles, the Community Resource and Facilities Inventory model and some of the data necessary for drafting legislation. One of the drawbacks of a secondary data study was in the inconsistent validity of the data; not all agencies audited their data equally carefully and some of the data gathered was in contradiction to other data. One negative impact was evident in the OSTI enrollment model, which, because of the specific data used for its projections, resulted in some differences between these projections and the enrollment information available from the local municipal school districts.

Measuring the application of the Conceptual Model indicates that it has met the goals set out for it. It is a useful device for developing relevant technical and informational bases for a Ten Year Plan. In addition, the use of this methodology has broadened the understanding by the other service delivery system agencies about the role of the education system within the community and within the metropolitan area. This will ultimately be of value to metropolitan-wide planning in a variety of functional areas.

CONCEPTUAL MODEL II: Community Participation, Public Information and Participatory Planning

> "The presumption of selecting goals for the 'good of all' without consulting 'all' is based on the sort of (perhaps unconscious) racist foundations and rigidity that are geared to maintain the status quo." Mel King, "Metropolitan Folly", Boston Development Strategy Research Project, (May, 1972).

Introduction

The overriding goal of the Metropolitan Planning Project's planning process was to ensure maximum participation for all racial and ethnic groups. Both the process and resulting plan reflect a respect for the positive contributions to be made. The MPP recognized that the special needs and characteristics of individual school districts must be considered and addressed. A process of maximal participation and mutual respect was adopted -- to do otherwise would be to invite failure.

The process adopted by MPP's Community Participation (CP) and Public Information (PI) Component reflected this overall mandate in a number of objectives and specific assumptions. Furthermore, the schedule and operations for CP, in two phases, provided effective feedback on the utility of participatory planning and the strategies by which participation can be effectively channelled to produce a maximum impact. The PI section, which was initiated late in the planning year, has complimentary and supportive strategies which will be discussed later in this section. At the outset, it should be noted that the CP process was experimental in the first of the two years of the MPP feasibility study. The experiment was not a total success, and the constraints of its success were, in part, due to the changing schedules and funding expectations of MPP as a whole.

This section of this chapter specifies the objectives and principal assumptions of Community Participation in the overall planning system. It also outlines the means by which these were employed in Phase I and Phase II, as well as the formation of the mandated Staff Development Plan. As with other sections of this chapter, Community Participation must be viewed as a part of a larger model and as an experimental system intended to generate significant planning information applied in reviewing the feasibility of a Formula Plan and supporting alternatives by which the MPP goals may be fulfilled.

Objectives of Community Participation

The set of objectives discussed in Diagram V-I, reflecting the goals outlined in this chapter's overview, were adopted as operating principles in all stages of the CP staff activities.

The Conceptual Model, developed as a response to the need to involve, immediately, the 78 school districts and hundreds of educational organizations in the metropolitan area in MPP's planning process, included the following assumptions:

1. That minority isolation must be reduced as it is in violation of basic human rights, and in particular, equal educational opportunities for all;

2. That metropolitan collaboration is preferable to intradistrict efforts in helping to reduce minority isolation. The issue is bigger than any one town and requires interdistrict, regional solutions; cooperation and collaboration should be encouraged between local school districts, private institutions and communities;

3. That those who have been traditionally excluded from educational decision-making be included in the delivery and supervision of metropolitan educational programs, through a metropolitan-wide network;

4. That minority groups should be represented in all phases of the Project;

5. That persons who are in the policy-making and administrative positions to implement the Ten Year Plan should be involved in its formulation;

6. That many cities and towns are not homogeneous entities but rather collections of neighborhood communities each with their own unique needs, and that all interested communities should establish local groups of parents, students, teachers and other interested parties who deal with local educational issues to be representatives in a metropolitan-wide network;

7. That each community evaluate and determine its own needs, interests, priorities and its own level of involvement in metropolitan collaboration. Community indices and criteria which were examined included MPP membership, METCO involvement, other collaborative participation, League of Women Voter work, socio-economic factors, percentage of staff in school districts who were minority groups, quality of curriculum materials, efforts toward open housing, and supportiveness of Superintendents and School Committees;

8. That each community should determine its own long-range goals for metropolitan collaboration and a methodology of implementation;

9. That there is a need for effective mechanisms at the local and metropolitan level to insure exchange of information and resources and to determine policy;

10. That, in addition to these mechanisms, there is also a need to allow interested persons from two or more communities to collaborate on specific projects or plans;

11. That the burden of movement from one location to another should not be placed solely on the shoulders of inner-city minorities;

12. That it is essential to establish relationships with existing agencies and groups concerned with metropolitan education and related matters;

13. That the reduction of isolation requires a socio-economic as well as an ethnic and racial mix;

14. That cultural diversity is one of our greatest resources; integration must not result in the loss of one's cultural identity. The positive contributions to be made by every racial and ethnic group must be recognized and their participation actively solicited.

Phase I Overview

A dual strategy was developed to involve both school systems and community organizations in discussions of the problem of minority group student isolation in communities and of strategies to overcome that isolation. The preliminary step was to bring together representatives of both these groups to familiarize them with MPP goals and to solicit their support in involving their communities in MPP's planning process.

The representatives met with their own groups where they used the fast forum or other appropriate techniques to solicit views on strategies to reduce minority student isolation as a second step. These representatives met back together with the CP staff in order to review and synthesize their suggestions. The product of these meetings was a major workshop to facilitate the coming together of diverse racial, ethnic, geographic, socio-economic, age, and interest groups around collaborative money-incentive program development. Groups could come together at this time to write proposals for the $300,000 available for the planning and pilot projects for this year.

Within four days in October, all 78 Superintendents, or their liaisons, were invited to attend an informational meeting about MPP. The sixty persons who attended discussed MPP's goals and ways that their communities might relate to them. They were each asked to initiate meetings in their communities, using a fast forum technique to collect input. Similarly, one hundred representatives of community organizations met to hear the same request.

During the next three weeks many of those attending these meetings did hold meetings with their constituent groups. At the end of October, sixty of these persons attended a Task Force meeting and, together with the CP staff, developed program priorities and identified other groups to be involved in the program development workshop on November 5 and 6. Representatives of ethnic groups, education groups, and citizen groups were asked for names of invitees. Wide publicity was given. The list of invitees was over 2000 names.

The November 5 and 6 Workshop was attended by 200 persons. Meeting from 9 A.M. until 10 P.M. both days, participants were involved in a variety of workshops on collaborative programs throughout the SMSA, goals of MPP, student participation, parent participation, staff development, and curriculum development. Proposal writing and the development of skills for cross-cultural collaboration were also offered.

Following the November 5 and 6 Workshop, an analysis of the strategy and input was carried out in order to organize the next steps.

Some weaknesses in the strategy were:

1. Very few Superintendents or liaisons (about eight out of eighty) had called community meetings as had been suggested. This might have been attributed to some initial confusion over MPP and their relation to it and also to Community Participation's staff inability to sufficiently follow-up on all of them. Another reason was the unwillingness of few Superintendents to play visible roles in this controversial issue of racial isolation.

2. Close personal contact was paramount, yet it was impossible to accomplish with the hundreds of organizations on the mailing list. An attempt was made, nonetheless, to quickly formulate ways to keep the hundreds of leaders meaningfully involved in MPP.

3. Community groups, as well as Superintendents, were confused over MPP's role and goals which caused frustration. This was partially due to MPP's desire to act as a responsive planning mechanism and partly to the need for immediate feedback which was considered crucial to MPP planning efforts.

These weaknesses assisted the CP team in the goals and operations available for Phase II.

Phase II Overview

Objectives for Phase II were formulated with the MPP staff, Advisory Committee, and consultants during the month of November. It was suggested that a representative metropolitan-wide network, primarily based around suburban and urban citizen's steering committees, would meet the need for personal contact and coordinated dialogue. The Steering Committee members, as representatives of their areas, would identify other interested persons and involve them in the planning process. The CP staff itself, however, would work closely with the twenty to thirty member Steering Committee. To insure adequate teacher and student involvement, special efforts would be made to identify them through their organizations and to involve them in MPP workshops. Task Forces would be formed around special interests, such as legislation or DLE programs. These would be publicized through the monthly newsletter and would include any interested persons in the SMSA.

The operational objective of the CP staff became to help develop, with interested SMSA community groups, a representative metropolitan-wide network committed to the reduction of minority student isolation. During the Winter, the CP staff concerned themselves with the following three specific objectives:

1. Designation and formation of interested SMSA community groups;
2. Assessment of these groups' interests and needs;
3. Coordination of interested groups into a metropolitan-wide network.

These objectives were carried out simultaneously and supported other specific objectives of MPP, such as the synthesis of information for the Ten Year Plan and the generating of alternative metropolitan educational programs.

The major thrust in the Spring and Summer were three transmission activities objectives which the CP and PI staff carried out together:

1. Dissemination of information about the metropolitan educational programs which made up the recommendations of the Alternative Plan;
2. Review and feedback of them by communities;
3. Summary of feedback for the modification of the programs which were included in the Ten Year Plan.

Strategies and Operation

In the development of a strategy for citizen involvement, first efforts were made to identify persons throughout the entire SMSA who were committed to the voluntary reduction of minority isolation. Meetings were held with leaders of the League of Women Voters, METCO, Fair Housing groups, and the Committee for Children to generate lists of interested persons and organizations and to assess the general climate and past activities of the 78 SMSA communities.

Hundreds of phone calls were then made to test the interest and to identify ten persons to each represent six or seven communities on a Steering Committee. These individuals were finally selected and given three major responsibilities:

1. Further identification of persons in the communities committed to MPP goals;
2. Continued advice to Community Participation staff on how best to involve their communities in MPP's planning process;
3. Continued feedback to MPP on its plans and programs throughout the year.

The Suburban Steering Committee members are listed, with their cluster of communities on List V-One; the Boston Steering Committee members, similarly charged are listed on List V-Two.

LIST V-One

METROPOLITAN PLANNING PROJECT

SUBURBAN STEERING COMMITTEE MEMBERS AND THEIR TOWNS

1. Ms. Helen Lauenstein
Wenham, MA

Topsfield
Hamilton
Manchester
Wenham
Beverly
Manchester
Middleton

2. Mr. Jim Walsh
Lynn, MA

Peabody
Lynnfield
Lynn
Salem
Marblehead
Swampscott
Nahant

3. Ms. Shirley Royal
Burlington, MA

Burlington
Wilmington
Woburn
Reading
No. Reading
Stoneham
Wakefield

4. Ms. Susan Glick
Malden, MA

Melrose
Saugus
Malden
Everett
Revere
Chelsea
Winthrop

5. Ms. Joan Garland
Belmont, MA

Belmont
Watertown
Arlington
Winchester
Medford
Cambridge
Somerville

6. Ms. Zoe Allen
Brookline, MA

Brookline
Newton
Waltham
Lexington
Lincoln
Concord
Bedford

7. Ms. Ruth Walter
Wellesley, MA

Sudbury
Framingham
Ashland
Wayland
Natick
Wellesley
Weston

8. Ms. Elizabeth Keil
Needham, MA

Needham
Dedham
Sherborn
Millis
Dover
Medfield
Westwood

9. Ms. Mary Nageroni
Milton, MA

Milton
Canton
Randolph
Norwood
Sharon
Walpole
Norfolk

10. Ms. Ann Baird
Cohasset, MA

Pembroke
Hanover
Cohasset
Scituate
Norwell
Marshfield
Duxbury

LIST V-Two

METROPOLITAN PLANNING PROJECT

BOSTON STEERING COMMITTEE MEMBERS

Ms. Big-Qu Chin
Cambridge, MA

Ms. Peg Piggett
Charlestown, MA

Ms. Barbara Spelcher
Cambridge, MA

Ms. Myrtle Adams
Boston, MA

Ms. Elsie Franklin
Dorchester, MA

Ms. Vivienne Thomson
Boston, MA

Angeles Rodriguez
Boston, MA

Albert Lau
Boston, MA

Ms. Marianne Pracida
So. Boston, MA

Ms. Patricia Ranese
So. Boston, MA

Mr. Thomas J. Moccia
Boston, MA

Ms. Leonora Grant
Hyde Park, MA

Ms. Gloria Joyner
Boston, MA

Mr. David Shih
Boston, MA

Ms. Louise Bonar
Brighton, MA

Mr. Bob Olson
So. Boston, MA

Mr. Brad Bryant
Boston, MA

Ms. Anna Mae Cole
Jamaica Plain, MA

Ms. Dorothy Jones
Roxbury, MA

Ms. Dorothy Cash
Mattapan, MA

Mr. Anthony Sasso
Boston, MA

Ms. Claire McCormack
West Roxbury, MA

Ms. Sandra Young
Dorchester, MA

Ms. Sandra Alemany
Boston, MA

The Boston Steering Committee, a result of earlier meetings of a Boston strategy team, was a Boston network of about twenty leaders of various ethnic groups and geographic areas. The City-Wide Education Coalition's network of citizens, already operative, was recommended as a good place to start.

The Coalition made available their mailing list, some office space, and considerable staff assistance for the remainder of the year as consultants to CP.

On January 16, all the persons identified by this group and MPP staff were invited by MPP to a Suburban Workshop with a panel on metropolitan collaboration and small workshop discussions on program development and MPP goals, local community involvement, citizen involvement in DLE projects and legislation. Seventy-five persons attended and gave valuable needs assessment, problem identification and alternative solutions to MPP.

The Suburban Steering Committee then held joint meetings with the Boston Steering Committee. Different priorities of the two groups became apparent. Boston members were concerned primarily with children's basic learning skills. Suburban members were more interested in cross-cultural enrichment programs. Both the Boston and Suburban Steering Committees usefully reviewed the proposed METROPATHWAYS. The committees stimulated development of curriculum, programs and governance, and two particular curricula options: the Charles River Project and Political Discovery at Government Center, which are described in Part Three: OPTIONS.

In the original plans for MPP, the facilitating of actual program development was to take place during the second year of planning, However, there was only one year and, since the DLE component projects were both funded late and the DLE staff did not view their role to be one of leadership in future program development, the CP staff, together with the Support Research staff, helped fill this important void.

Joint Urban-Suburban meetings pointed out some different priorities already mentioned. The groups were later able to agree on many common issues and programs in the METROPATHWAYS program recommendations. Consistent attendance at meetings was compounded by the crisis nature in Boston around possible repeal of the Racial Imbalance Law and the referendum for reorganization of the schools. Members who were unable to attend meetings, nonetheless, gave valuable input when requested by phone or mail. The Boston group was representative of all minority groups as well as both sides of the "bussing" issue.

Many of the initial members of each Steering Committee have remained committed and active. This group of people, each having credibility, contacts and experience in his or her own communities, has had a major impact on MPP's goals. Their experience and their perspective, reflecting the unique and varied interests of the SMSA would be vital to tap in any future metropolitan effort.

One of the major strengths of Phase II was the effort towards teacher involvement; although some teachers had participated in MPP workshops, a major effort to involve teachers did not begin until the Spring, although the Advisory Committee had often raised this issue.

At that time, the Assistant Director for Staff Development of the Massachusetts Teacher Association and the President of the Boston Teachers Union became ex officio members of MPP's Governing Board. They also joined with the CP staff in planning strategy for teacher involvement.

Teachers became involved through their teacher organizations. The M.T.A. and B.T.U. extended personal invitations and encouragement to teachers to join together in a dialogue about metropolitan collaboration and its implications for teachers. MPP, M.T.A. and B.T.U. together planned a workshop which took place in May as the first step. The discussion included a major issue: the future leadership role of teachers in metropolitan education if MPP was terminated by the federal government.

Each organization invited representatives of their own associations and a personal letter was sent from the MPP Executive Director to all superintendents requesting their cooperation by giving release time for one to three teachers from each suburban district and twenty five from Boston. The CP staff and the Advisory Committee Chairman, himself a teacher and M.T.A. member, attended regional M.T.A. meetings throughout the state to explain MPP and invite members to the workshop.

One hundred teachers attended the workshop. The workshop outlined MPP education program recommendations as well as governance structures. Participants discussed issues of curriculum and staff development, and focused on the implications of metropolitan collaboration for collective bargaining. Teachers were requested to take leadership roles in metropolitan collaboration. It was suggested that MPP help the organizations explore the role that they could potentially play.

The success of this conference can be partially attributed to the fact that MPP had, by this time, substantial education program and policy recommendations to which the teachers could respond. Furthermore, the M.T.A. and B.T.U. involvement in all phases of planning and publicity and their personal invitations to their members accounted for better attendance than MPP could have drawn as an unfamiliar organization. The teachers' organization involvement in the planning of the agenda assured that the day's format would meet the needs and interests of their members. In August, MPP staff members attended an M.T.A. Leadership Conference to build on the organization's initial interests and involvements.

One constituent group, whose interests had not been adequately addressed by MPP prior to Phase II, was the student community.

A few efforts to involve students were made during the first part of the year. In October, the Community Participation staff had two meetings with the Student Advisory Committee and the Greater Boston Regional Education

Center to discuss strategies for student involvement, and a small student meeting was held in late October. Two meetings for students and teachers from public alternative schools in the metropolitan area were held to discuss ways in which they could collaborate. This led to an MPP workshop on Interdistrict Collaboration at a Conference on Alternative Programs and Practices in Secondary Schools at New Medford High School.

Finally, a questionnaire was disseminated to survey student opinions of MPP metropolitan educational programs. The questionnaire was helpful in supplying information on student preferences. (See report in Volume IV). Pilot study sites were selected by applicant districts' status and for selected sections of Boston. A substantial sample could reflect the character of the metropolitan Boston area. Several factors were reviewed in screening each of the proposed pilot areas: income, education, student population, ethnicity, and area involvement with issues related to MPP goals. Community Participation staff selected as pilot sites in Boston: the Dorchester, South End, Roxbury, and North Dorchester districts. In the suburbs, Newton, Cambridge and Framingham were selected.

Political involvement became most prominent in Phase II. In January 1974, a "Rationale for Proposed Legislation for a Metropolitan Educational Network" was written by the CP staff and discussed with the Co-chairman of the Joint Education Committee of the State Legislature, the Education Secretary, the State Education Commissioner, and others. While all agreed with the need for some metropolitan programs to reduce minority group isolation that would be available at third sites on a voluntary basis, and on information systems that would facilitate this process, it was not, at that time, a sufficient priority of any of them to support a budget request.

Community Participation testified at the state metropolitan hearings on April 8 against several bills to increase METCO ten-fold and to disburse minorities on an equal percentage basis throughout the suburbs. They also testified against repeal of the Racial Imbalance Law. In this testimony they presented the METROPATHWAYS Progress Report and latest research information.

During May, discussions were held with Governor Sargent's staff about the Governor's proposed Racial Imbalance bill to the legislature. All MPP program and legislative recommendations, were presented to the Governor's staff stating that these were supplementary and not a substitute to the Racial Imbalance Law. These legislative activities continued during the Summer and merged with the activities of the Support Research team.

Objectives of Public Information

Many of the PI objectives were related to those of Community Participation but the PI activities have been particularly oriented toward the meeting of the following specific objectives:

The general objective was to create a communication network for the dissemination of information about MPP and to otherwise support the activities of the Community Participation, Support Research, and Design of Learning Environments Components.

Specific objectives and their resultant activities include:

Specific Objectives	Activities
To disseminate widely throughout the SMSA of MPP's purpose and activities through use of selected media; to keep interest groups as well as the general public informed;	Newsletters; Slide and video presentations; Supplying information to news media; Master mailing list;
To solicit, encourage and facilitate participation of individuals and organizations within SMSA in the planning process;	Personal contacts with individuals and organizations; LOGO Contest; Slide presentations; Video presentations;
To provide support and information services as well as to facilitate communication and collaboration between the staff, Governing Board and Advisory Committee;	Advisory Committee and Governing Board Bulletin with tear-off section for questions; Personal contact with members of Advisory Committee;
To support MPP staff with media materials designed to help achieve better dissemination of information and understanding of MPP goals and purposes.	Media Team developed materials for presentation of MPP activities (e.g. photography, diagrams, slides, video presentations).

The MPP Newsletter was a primary tool for achieving many of the objectives. Therefore, special emphasis was given to the periodic production of this information vehicle.

Because of manpower limitations, regular and frequent Newsletter production was increasingly difficult since efforts were also made toward major and comprehensive coverage of MPP in the mass media.

Nevertheless, television and radio stations, as well as all urban and suburban newspapers (including minority newspapers) were informed of Project activities through the Newsletter and press releases. This has proven to be effective in raising questions and arousing interest, as the news media has contacted MPP about the information published in the Newsletter and through news releases.

One half-hour television program has been broadcast in which the dynamics and purpose of the Metropolitan Planning Project were discussed. The Project's Executive Director, the Coordinator of Design of Learning Environments, the Community Participation Coordinator and a representative from one of the DLE subcontracts approved for funding took part in this program.

It has been difficult to maintain an updated Master Mailing List since the system is not machine-based but stored on typed sheets from which gummed labels are photo-reproduced. This results in a relatively rigid system into which it is difficult to insert information and from which it is extremely difficult to extract particular names or groups of names of persons sharing common characteristics. In addition, much of the raw information for all the lists was provided by informants who did not always provide complete addresses, or left incorrect ones. Therefore, some information, such as ZIP coding was not always correct on the mailings. These problems have in the past caused some material to be returned to us. Periodic reviews of returned Newsletters, making changes and corrections in addresses whenever the necessary information is retrievable has proven helpful.

A computerized mailing list would have increased the usefulness of this technique. The system should be programmed to delineate a number of characteristics for each entry. Classifications could have included teachers, parents, students, Blacks, Hispanics, Asian-Americans, Native Americans, age groups, and interest areas.

The Mailing List includes approximately 4000 names.

The Advisory Committee and Governing Board requested a feedback machanism. An in-house bulletin was designed to insure that they were kept aware of the latest staff activities.

Furthermore, certain minority groups, particularly the linguistic minorities, had not been made aware of MPP in the Fall. Little or no participation could be achieved since information was not circulated to these persons. Since the time the mailing lists of the following groups have been added to the regular mailing list:

Black Educators' Alliance
Bilingual Department of Boston Public Schools
Chinatown Little City Hall
Chinese Education Committee
Massachusetts Latino Media Group
Puerto Rican Teachers Association

PI attempted to "reach out" to several of the more influential persons and organizations of these minorities and now most of the organizations receive some type of information and are kept up to date on Project activities through personal contact and through the Newsletter. For example, a seminar on the

Spanish-speaking was held at MPP, and PI held an orientation session with members of the Chinese Education Committee. A representative from this organization was included on MPP's Urban Steering Committee.

PI has developed audio-visual materials which will be used by the staff to more effectively present the different ideas which the Metropolitan Planning Project has been able to develop in its short history.

MPP prepared a video tape on the DLE experiences and a slide presentation on the Ten Year Plan METRO WAYS TO UNDERSTANDING.

In attempting to reach the students, a LOGO Contest was held to define the Metropolitan Planning Project symbol. It was successful and the winners were:

First Prize: THE JOINING AND INTERACTING OF ALL RACES POINTING TO A COMMON GOAL -- BETTER EDUCATION FOR ALL CHILDREN
Andrew Breen, 11th grade
Copley Square High School
Boston

Second Prize: SEPARATE BUT JOINED, WE ARE ALL GOING AHEAD TOGETHER
David Alexander, 10th grade
Newton South High School
Newton

Third Prize: PUTTING PEOPLE TOGETHER TO LEARN ABOUT ONE ANOTHER
Kathy Kelly, 3rd grade
Plymouth River School
Hingham

In the future, identification of publics to be informed must be a primary step. This would include students, school personnel, parents, school districts, and minority organizations.

Separate strategies for dialogue for each must be utilized. Such groups and the means to maintain the information exchange include:

1. Students: counselors, teachers, films;
2. School Personnel: proposals, program descriptions, brochures, booklets, films;
3. Parents: teachers, films, brochures, community organizations;

4. School Districts: field agents, graphics systems, proposals for programs, meetings with previous participants in programs;

5. Minority Organizations: field personnel, proposals and program descriptions, meetings with previous participants in programs.

Clear-cut activities and programs must be ready and in understandable terms to attempt any outreach program by public information and materials must be developed in advance. Constant revision must take place. Adequate evaluation of the effect of alternative techniques for each of publics should take place.

For the mass media a flow of information must occur from the different groups involved to a central point for adequate dissemination on a timely basis. Personal follow-up by publicist must assure adequate coverage.

Resources must be available and properly coordinated. These include artists, technicians, operators, printers, and budget for news media activities.

The major recommendation for Public Information is that a systematized flow of information begin immediately. This flow of information must use a spiral model in which all needed information flows through all levels and is readily available. There must be intercommunication and exchange of information regarding staff development, community development, research and evaluation, curriculum, parent development, resources and transportation. Appropriate staff should be available at each level.

Design of a Staff Development Plan

CP Objective F mandates the design of a plan to assume leadership in gaining wide acceptance of MPP's goals. The original budget request for this crucial support element of the Ten Year Plan was severly restricted by the Federal Office of Education. Nonetheless, given the integral nature of this activity in the operation of the program recommendations, a plan was designed and tested during the Spring and Summer of the feasibility study year. This Staff Development Model was a direct response to the objective and was an outgrowth of the combined activities of two project components: Community Participation and the summer work of the Design of Learning Environments. The design for staff and program development, therefore, represented MPP's programmatic integration of these two components, with the outcomes and products of knowledge feeding directly into the Alternative Plan.

It is through the curriculum and program options of METROPATHWAYS and METRO-PAIRWAYS that students from the city and suburbs will interact and share learning experiences. Programs will be designed to facilitate new ways of understanding cultural, economic and physical environments, while encouraging necessary and basic studies. The curriculum and program options, scheduling mechanisms, and staff, community and parents participation procedures, reflect common goals and seek methods of increasing collaboration between city and suburb.

Program development and staff training activities centered upon the immediate and long range requirements of activities necessary in implementing METROPATHWAYS and METROPAIRWAYS.

Goals and Objectives

The objective of such a staff development and training program is to train a cadre of school personnel (Superintendents, teachers, parents) who will, in turn, train other school personnel in methodologies and instructional approaches to be used in a multi-cultural, multi-racial learning environment.

The staff development activities that were planned for the Summer and Fall of 1974 were, thus, tied in closely to the development of the program components of the Alternative Plan.

The goal of these activities was to prepare administrators, teachers, paraprofessionals, parents, and students for implementation of metropolitan educational programs that bring together students and teachers representing a cross section of the ethnic, racial and cultural groups that reside in the urban and suburban communities of the Boston metropolitan area. The main purpose of these voluntary metropolitan collaborative programs would be to reduce minority and majority student isolation through bringing students together in a setting where cultural awareness can foster and grow.

The specific goals included:

1. Provide viable training programs which would enable involved and interested parties to replicate or improve upon successful MPP programs developed by the DLE projects and the Urban-Suburban Steering Committee ;

2. Provide the necessary staff training to selected groups to enable them to fully test their programs.

Background

The staff training model represented areas of interest expressed to MPP by educators, parents, students and representatives of community groups. The model was flexible and adaptable, formulated to meet the needs and desires of these planning process participants.

The Community Participation staff spent a great deal of time meeting with school personnel to get their input into the on-going development of the phased Ten Year Plan. The various meetings that were held throughout the 1973-74 school year were directed toward gaining widespread understanding and approval of MPP's goals among school personnel. A conference with Superintendents and a number of small group meetings with Massachusetts Teachers Association (M.T.A.) local county representatives took place throughout the year. These led to the metropolitan wide teachers' conference discussed earlier.

Participants from this conference were later recruited for the Educational Development Center's (E.D.C.) Summer Institute. This program was offered by MPP to encourage further teacher involvement in metropolitan scope programs specializing in open education techniques in the 1974-75 school year.

MPP Participants in the Summer Institute on Open Education-- Education Development Center (E.D.C.)

This was an intensive program focusing on implementing open education and flexible classroom formats based on learning theories and child development. Lectures and seminars, small discussion groups, films, on-going related curriculum workshops and individual projects addressed the cognitive, affective and physical development of children; an integrated curriculum with emphasis on language arts, social studies, math, science and creative arts activities; bilingual and bicultural education, identity; providing for the exceptional child; and developing a true school community. Flexibility in classroom formats and overall philosophy of education is important in developing programs to eliminate minority student isolation on third sites.

Monthly meetings held with the Urban-Suburban Steering Committee produced two metropolitan program collaboratives, The Charles River Project and Political Discovery. During the Spring and Summer, administrators and teachers from Boston and suburban school systems met with environmentalists to discuss the possibilities of a Charles River Project course and to plan for needed staff development. As a result, pilot project goals were developed, a resource list outlined and a series of workshops were planned for late August. Groups involved in the Charles River proposal planning included the Trust for Environmental Education, representatives from the Commissioner's Office, Massachusetts State Department of Education, League of Women Voters, Charles River Watershed Association, teachers from Wellesley High School, the Director of the Watertown Home Base School, an advisor to the Boston Superintendent of Schools, teachers and a Flexible Campus Coordinator from Boston English High School, teachers from Charlestown High and a Conservation Commission member.

This project used the river as a link between the white suburbs and the minorities in the city. It provided a basis for collaboration, focusing on environmental studies and outdoor recreation. Native American, Black, White, Asian-American, and Hispanic students participated by mapping the Charles River by canoe, studying sites, meeting people along the course. Later, the students met once a week for a semester to study the river from a variety of view points: political, ecological, historical, recreational. Group and individual study projects were developed.

The second of the MPP metropolitan program collaboratives, which grew out of the Urban-Suburban Steering Committee, was explored in early May, 1974. A series of meetings, hosted in Mayor Kevin White's office, in coordination with MPP, with representatives from virtually all the major educational agencies and projects who have a demonstrated commitment to programs which bring city and suburban students together to capitalize on learning resources of the city. The intention was to cooperatively develop a project that would further the twin goals of metropolitanism and the use of the city as a learning environment.

Consensus quickly developed around the notion that the government center complex represented an enormous untapped resource for educational purposes, and that it would be both practical and feasible to concentrate our collective energies on developing a range of programs that make available the resources of government center to the students and teachers in the greater Boston area. Those involved in the planning of the program, the Political Discovery Project in Government Center, included the Education Collaborative for Greater Boston; the Boston Secondary School Commission; the Experimental School System of the Commonwealth of Massachusetts, (ESSCM); the Massachusetts State Department of Education; Greater Boston Regional Center; State Department of Education, Office of the Commissioner; the Bureau of Student Services; the Secretary of Education; the Office of the Mayor of Boston; and teachers from secondary schools in Boston, Wellesley, Lincoln-Sudbury and the Shawsheen Valley Regional Vocation Technical School, as well as MPP.

Two elements took place:

Boston Summer Study Project in Government Center

The goal of the Boston team was to gather information on existing public affairs programs which encourage youth in the Boston Metropolitan area to participate in civic affairs. This was accomplished by investigating current agencies and resources in Government Center. The students provided recommendations for alternative education programs for the Fall in light of their findings.

Political Discovery Project

This Project drew upon the experience of the Federal Internship Program in the design of individual programs for students in the Governmental Center of Boston. It was an extension of a Manpower and Economic Development Program and would have students from Boston and the suburbs learning about the work of government on local, state, and national levels using existing space and talent in the various governmental offices. Three "samplers" (5 day programs) which incorporate the curriculum and program development suggestions elicited from Boston SMSA participants and the research and practical knowledge gained by the Boston Summer Study Team were prepared and tested.

Coordination and Operation

As a result of the meetings during the planning year with Superintendents, teachers and the Urban-Suburban Steering Committee, the CP team realized that any staff development program had to be related to a concrete program that involved children in a learning situation. School administrators, teachers and other participants had to become more readily aware of the need for certain kinds of sensitivity techniques and cultural awareness activities if these voluntary collaborative programs to eliminate student isolation were to succeed.

This was the basic framework for the staff development design. Meetings were then held with the Political Discovery Project, ESSCM, and Charles River personnel to critique the proposed design. ESSCM then took the role of the consolidating and coordinating of the staff development for all programs and EdCo became responsible for the coordination of the program development of the Political Discovery Project.

Another meeting was held in mid-July with the directors of the Design of Learning Environments Projects. The staff development programs were outlined to them for their review; they were invited to subsequent workshops. Several DLE directors expressed the need to integrate their programs with the other staff and program development activities that would be taking place. MPP staff then began to identify human resources for the various staff development options. DLE projects which could be operational as part of METROPATHWAYS were thus also integrated into the Staff Development Model.

ESSCM ran the actual staff training workshops which tested the design. In attendance at the Charles River Workshops were teachers from English High, Roxbury High, South Boston High, and Brighton High. The workshop included a discussion of the goals and philosophy of the Charles River Program and discussions about awareness which were led by staff from ESSCM.

The Political Discovery Workshops were led by EdCo staff with the main thrust being the development of a three week pilot for a course on the study of Government and Politics using the Government Center Project as a focal point for secondary school students from urban-suburban schools.

ESSCM also ran two workshops in mid-September for teachers involved in the above two projects, for DLE directors, and for the teachers who had attended the EDC Open Education Workshops. The purpose of these workshops were to:

1. Increase the skills and understanding of interpersonal and intergroup relations;

2. Increase the skills and understanding in interracial relationships;

3. Design a course in environmental study and a course that enables high and middle school students to study the levels of government, using the Government Center as a base;

4. Design a curriculum which would be piloted in the Fall and which could be operational on a larger scale in January of 1975.

Some of the observations that were made at the ESSCM workshops included that (a) participants came interested and more prepared to discuss MPP programs rather than issues of dealing with the multi-ethnic diversity in the classroom. Issues that were raised were as follows:

1. Issues around authority or fear of authority;

2. Issues around cultural differences and cultural significance;

3. Issues of conflict between moral position, job security, and job risk;

4. Issues of dealing with multi-racial problems while dealing with other individual academic needs of students.

Recommendations made from the group as a whole focused on the desire for more staff development workshops of longer duration that covered areas of the various programs more specifically. They also recommended in depth coverage of issues mentioned above, particularly in the areas of development of racial and ethnic awareness and understanding.

Further recommendations included a workshop that would include administrators and department heads from Boston and suburban school districts and that would on "changing the educational environment through new administrative perceptions

The design of a model to train teachers and administrators to assume leadership in developing and administering programs to achieve the mandate of MPP was tested through these operations. The evaluation of the workshops indicated that they were successful in accomplishing their aim. The operational phase of METROPATHWAYS includes a staff and program development component which will build upon the results of this test design.

CONCEPTUAL MODEL III: Design of Learning Environments and Incentive Programming

Introduction

The conceptual scheme of the Design of Learning Environments Component of MPP reflects the dual goal of broad-based participation and incentive programming for voluntary collaboration. This section of the Chapter summarizes the process by which schools and non-school groups were involved in proposing pilot planning efforts.

Individual DLE projects are described in Part Three: Options Chapter VIII, "The Alternative Plan"; Volume II PART THREE excerpts the final reports and contains the Metropolitan Planning Project Directory of Applicants for Design of Learning Environments Sub Contracts.

As mandated by the Proposal, the DLE process was a variant of action research that would broaden the planning process by providing money incentives for planning and testing collaboratives to eliminate racial and ethnic isolation among students in the SMSA. These programs were to be selected in an open bidding process, thus reflecting what was to be the overall approach of the entire planning process: to plan with, not for others, and to learn from communities themselves about some of the workable programs, as seen through the eyes of those who would be most directly affected.

The MPP Proposal viewed such an open process as helping to "counteract the inevitable fears and accusations that the purpose of this planning grant is to enable some communities in the SMSA to develop a desegregation plan which they can then impose on all others." The Proposal went on to state that "we are serious in our commitment to desegregation, but we are equally serious in our belief that any plan with a prayer of success must be voluntary and must emerge as the result of a genuinely open and participatory process". Although over a million dollars was requested from the Office of Education, just $300,000 was provided for purposes of encouraging the development of interdistrict collaboratives. These projects were tested regarding their feasibility as a part of the phased Ten Year Plan. The DLE's were conceived as a planning instrument and not the first step in an implementation process. Collaboratives were to be formed to develop alternative solutions to the problems caused by racial isolation. These solutions were, then, with the help of Project staff, to be translated into programs to be tested for their workability during the second year of planning and then evaluated for inclusion of the results into the Ten Year Plan.

Process

The goals and objectives of the DLE Component were presented in Diagram V-1. They underlie the procedures for the Component which were as follows: the legal process of the ESAA and federal regulations to apply for a subcontract (see EXHIBIT V-1); screening the applications by MPP through citizen review panel utilizing a decision matrix (see EXHIBIT V-2); award of contracts by the Governing Board (see EXHIBIT V-3); approval by the Federal Office of Education; MPP monitoring of the contractors work; and evaluation of final reports (see EXHIBIT V-4).

EXHIBIT V-1

SUGGESTED PROCESS FOR BIDS
DESIGN OF LEARNING ENVIRONMENTS

The Metropolitan Planning Project is a cooperative undertaking of school districts in the Metropolitan Boston area to reduce racial isolation in primary and secondary schools in the area. The Project has received a grant under Section 709 (2) of Public Law 92-318, Emergency School Aid, "for the joint development of a plan to reduce and eliminate minority group isolation to the maximum extent possible..." As part of the application for the grant the applicants agreed that the proposed plan would provide that by 1983 the percentage of minority group children enrolled in each public elementary and secondary school in the area would be at least fifty percent of the percentage of such children enrolled in all such schools in the area.

The "Design of Learning Environments" Component of the Metropolitan Planning Project is a broad-based effort to involve SMSA students, parents, community groups, school districts, as well as artistic, scientific, and industrial agencies in the conceptualization, piloting and evaluation of proposals that encourage the voluntary elimination, reduction or prevention of minority group isolation within specific schools and school systems. Such proposals must have as their guiding rationale the improvement of the educational opportunities and experiences of all students. In short, we seek to facilitate efforts by regional people to find viable and attractive methods of providing quality integrated education in the larger context of offering new models of educational upgrading and reform.

Fundamental to our program efforts is the recognition that students, parents, educators, and planners must create programs, processes, and structures whose vibrance, usefulness, and educational soundness more than offset any transportational or attitudinal biases. Stated another way, such programs must have sufficient appeal to generate their own interdistrict clientele in addition to public support.

Sites for these environments may be "schools" in the traditional sense, or alternative educational setting representing the region's vast array of artistic, scientific or industrial institutions. It is our intention to solicit ideas/proposals for subcontracts or development by Project staff from as many of these agencies and groups as are interested in submitting them for consideration. Project staff will be available for consultation with any group planning to make application. Any subcontractor will be under the on-going policy direction of the Governing Board. All proposals will be judged by the criteria below with funding decisions to be made by the Governing Board.

In order to assure the widest development of ideas and plans in this program area, the Metropolitan Planning Project will award grants and mini-grants ranging from $2,000 to $75,000 to individuals and organizations submitting the most imaginative and workable plans for integrated environments. Proposals are encouraged which have either metropolitan-wide applications or interdistrict applications.

The Metropolitan Planning Project has established the following criteria to be used in the evaluation of brief idea statements and more formal proposals in the area of developing learning environments:

1. Applicant should state specific objectives to be met in reducing or preventing minority student isolation in a interdistrict basis;
2. Applicant should demonstrate that proposed activities will be responsive to the objectives outlined;
3. Applicant should show capacity to identify and retain any staff (voluntary or paid) needed to operationalize the plan within the projected period;
4. Applicant should, where possible, indicate any support for proposal, particularly support from parents and students;
5. Applicant should identify proposed method of fiscal accountability;
6. Applicant should indicate whether concepts and practices proposed could be adapted or adopted elsewhere;
7. Applicant should indicate the extent to which plan provides equal accessibility to both urban, suburban and rural students;
8. Applicant should outline any proposed evaluation to be used if funded.

TYPE OF GRANT

Grants are primarily for planning and it is anticipated that at least fifty percent of the funds available will be allocated solely for planning. However, three types of grants are available. Group A grants are those solely intended for planning a project for implementation in the 1974-75 school year. Group B grants are those intended for planning and pilot implementation in the current school year. Group C grants are those intended for implementation of projects already planned but requiring seed money for implementation. Group C grant applications must be presented in such a manner as to permit consideration of the planning component alone for eligibility in Group A. Group C grant applications must include evidence that funds awarded will not supplant those from other sources.

EQUAL EMPLOYMENT REQUIREMENTS

All applications for grants must include a plan and commitment for the inclusion of minority group persons in any staff or consultant employment.

CITIZEN PARTICIPATION

All applications must include evidence of the participation of parents, teachers, students and other citizens in its development and must contain a plan for continued citizen participation.

Complete applications will be reviewed by staff and by a committee composed of representatives from the Governing Board and the Advisory Committee. Within this review process the applications may be returned for amendment, recommended for rejection or recommended for acceptance. Based on these reviews, the Project Director will make recommendations to the Governing Board on projects to be funded within the budget established. The Director's recommendations will be made available to applicants before they are acted upon by the Governing Board. The Governing Board meeting in public session, will make the ultimate decision on which grants will be made.

EXHIBIT V-2

DESIGN OF LEARNING ENVIRONMENTS
DECISION MATRIX

APPLICANT: ______________________________

DECISION MATRIX FOR PRIORITY OF PROPOSAL REQUESTS

Determinants		Total Pts.	Index
A. Demonstrated understanding of purposes of Metropolitan Planning Project by Contractors			
1. Reduce minority group isolation through improved educational opportunities for all students	.05		
2. Interdistrict or regional effort	.03		
3. Viable and attractive methods of Quality integrated education: new models of educational opportunities for all students Quality learning environments: sites which may be schools or alternative educational settings; attracting interdistrict clientele; attracting public support	.03		
		.11	
B. Objectives of Proposal			
1. Qualitative statement related to overall goal	.03		
2. Quantative statement related to overall goal	.03		
		.06	
C. Citizen Participation Component			
1. Evidence of			
a. Participation of parents, teachers, students, and other citizens in proposal development	.04		
b. If the plan involves high school students, evidence of extent of involvement in its planning	.04		
2. Evidence of plan for continued citizen participation	.07		
		.15	

		Total Pts.	Index
D. Student Isolation			
-Measurement			
1. Clearly designate student population to be served; all projects must involve minority group and non-minority group students	.04		
2. Measure of extent of isolation	.04		
3. Factor of geographically disparate areas (urban, suburban, rural)	.02		
-Reduction			
1. Extent project will increase knowledge of students concerning their own or others' cultural background or heritage	.10		
		.20	
E. Project Scope			
1. Number of cultural institutions, nonprofit community agencies, school districts involved	.05		
		.05	
F. Educational Quality Factors			
1. Awareness of new approaches, innovative techniques	.04		
2. Creativity	.03		
3. Practicability	.03		
4. Increase the educational knowledge of students involved	.05		
5. Method used to attract students on voluntary basis	.05		
		.20	

EXHIBIT V-2--continued/3

		Total Pts.	Index
G. Replicability within district and other districts	.03	.03	
H. Budget Management			
1. Budget by man-hours/objectives/cost out by monthly basis	.02		
2. Shared cost of services by districts or institutions or agencies	.02		
3. Timeline, critical path, or PERT; staff organization chart; and schedule of interim and final report writing for appropriate due dates	.01	.05	
I. Staff Personnel			
1. Qualifications include having worked on implementing similar projects	.03		
2. Racial and ethnic diversity of staff	.07	.10	
J. Evaluation Component			
1. Process for measuring objective achievement	.03		
2. Methods for carrying out evaluation	.02	.05	
TOTAL		1.00	

COMMENTS:

RANK:____________

EXHIBIT V-3

APPROVED DESIGN OF LEARNING ENVIRONMENTS PROJECTS

Each project involved a minimum of two school districts, community groups, or parent and teacher advisory councils; each was developed to include students of different racial and ethnic backgrounds.

PROJECT	PRODUCT
E.N.E.R.G.Y. Experimental School System of the Commonwealth of Massachusetts Participating Districts Boston, Lincoln, Sudbury, and Cambridge Students Involved 40	The Experimental School System of the Commonwealth of Massachusetts planned and piloted a project that involved high school students from a variety of racial and ethnic backgrounds in a cooperative and productive study focusing on the issue of the energy crisis. This issue was selected for its relevance to the lives of the individual students, the participating communities and national interests. The students developed a report on the energy crisis as it is perceived as an issue by different groups of people especially around the problem of transportation. It produced an educational program involving students from different cultural environments who worked together to collect and report data relating to the use of energy resources. The methodology by which the students operated can be used with other ecology and environment issues.
Theatre Company of Boston Participating Districts Lincoln, Sudbury, Boston, Watertown, and Brookline Students Involved 50	The Theatre Company of Boston taught a theatre production course for academic credit to fifty students from Boston, Watertown, Brookline, and Lincoln-Sudbury Regional High School. The purpose of the pilot was to serve as a model for introducing theatre arts into the school curriculum and for establishing a professional company of actor/teachers supported on a metropolitan basis. Among the final products of this project was a student production entitled "Metroliner" which toured Brookline, Roxbury, Watertown, and Lincoln-Sudbury. In its final evaluation of this

EXHIBIT V-3--continued/2

Theatre Company of Boston continued	project the Theatre Company of Boston concluded, "...students in the drama program appear to have greater concerns about the need for understanding and interacting with people of all races and backgrounds. It is only by taking every opportunity to learn from and understand each other that the barriers isolating individual races and cultures can be eliminated."
C.A.S.E.S. (Cases and Studies of Economic Situations) Participating Districts Boston and Lexington Students Involved 25	The aim of this program was to join with the National Alliance of Businessmen, the Federal Reserve Bank and the Cambridge and Boston school departments to plan and pilot a course for high school students in the basic principles of economics, utilizing a case study method and the community as the classroom. The project resulted in three cases produced by the students based upon their visits to educational institutions, banks, electronics firms, major department stores, insurance companies and other business firms.
Boston Street Academy Participating Districts Boston and Cambridge Students Involved 18 on planning teams	The aim of this program was to involve parents, staff and students of high schools in the two communities to plan a drop-out prevention program. The program planned to use a flexible campus approach aimed at helping to improve the self image and image of other groups for both minority and non-minority students. With eighteen students on the planning team, this program produced a program for potential school dropouts which included a curriculum and instruction strategies for prevention which meets some of the need for basic skills programs.
Social Discovery Participating Districts Boston and Reading Students Involved 50	Social Discovery, an alternate semester program, provided an opportunity for students to develop greater knowledge of the basic forms of social organization which form the fabric of American Society This was achieved by not only having the students read and research a variety of lifestyles and social conditions, but also by actually participating in the living situations they were studying. The support from parents and community was extremely good, with parents providing valuable suggestions for reading lists and placement sites. Further, this program developed and published a curriculum guide for exploring diverse social structures, cultures, and lifestyles, which is available for schools who wish to establish a similar program.
Chinese American Resource Center Participating Districts Lexington, Experimental School System of the Commonwealth of Massachusetts, and Marshfield	The Chinese-American Resource Center annotated and packaged units of printed and audio-visual materials on the Chinese and Chinese-American experience for classroom use. They developed Chinese-American studies curricula for elementary, junior high and high school, including Mandarin and Cantonese language lesson plans and a curriculum guide for a program exploring diverse social structures, cultures, and lifestyles.

Boston Indian Council

Participating Districts
Boston, Brookline and Hingham

Students Involved
40

The Boston Indian Council had teachers and students meet to develop curriculum and materials explicitly portraying Indian people and life in a positive manner, as well as instructions on their usage by Anglo teachers. Their project led the participants to a greater understanding of Indian culture and history. The involvement of parents and teachers greatly facilitated the successful outcome of this project.

Storefront Video Project

Participating Districts
Boston and Cambridge

Students Involved
25

The Storefront Learning Center Video Project, consisted of a twelve-week cross-cultural education program utilizing the techniques and potentials of half-inch video-tape production as a learning experience for middle school students. The students were trained to plan, write, tape, and edit videotape. The process of learning to produce videotapes involved the development of academic and socia skills. Techniques of interviewing, improvisation, creative writing, and dramatics were stressed as par of the curriculum. Concurrent with these educationa objectives were personal and group goals. Students were to be able to use the portapak equipment and accessories competently, to explore their environmen and to express themselves. The feedback capacity of the video system was exploited in fostering positive self-images and cultural pride through affirmative presentation of the student and his or her ethnic heritage. The group evoked a strong sense of unity and mutual respect as they cooperated in the learnin and production procedures of the curriculum.

Hispanic Culture Curriculum Project

Participating Districts
Randolph, Brookline and Boston

The project was conceived by H.O.P.E., the Hispanic Office of Planning and Evaluation, as the first step in the development of a bilingual, bicultural curriculum for the social studies programs at the junior and senior high school level. They developed and tested resource units which included the study of American societies, land, people, cultures, and the Hispanic communities in the United States. An important part of the project included the identification and production of educational materials related to the Hispanic experience in New England. It was discovered that existing materials in bilingu programs in such places as Puerto Rico, New York and the southwest for the most part could not be transferred to Boston due to the particularities of the Hispanic communities to which they are addressed. Reading materials, and visual aids were produced and compiled.

Mobile Museum

Participating Districts
Brookline and Weston

The Elma Lewis School of Fine Arts, Inc. (ELSFA) developed a cross-cultural program involving schools in Brookline and Weston. Initially, the ELSFA staff presented a series of seminars and workshops to teachers, parents, and students in these districts. The purpose of these seminars was to orient these groups to the personnel and curriculum resources of the ELSFA in the areas of Afro-American, West Indian, and African music, drama, art, dance, and costuming. As a result of these workshops, teachers made use of ELSFA resources. For example, when a class was studying communication, a person from ELSFA who was an expert on African drums was utilized. ELSFA developed a Mobile Museum that contained exhibits of sculptures, masks, headdresses, and other traditional items that are part of the African way of life. This museum, which also contains a number of audio-visual aids, presents six week activity programs at interested school districts. The exhibits in this Mobile Museum are used by teachers in such curriculum areas as Social Studies, Art, Music and Dance.

Cooperative Seminars Program

Participating Districts
Boston and Cambridge

Students Involved
20

This program was developed by the Cambridge Montessori School and the Federation of Boston Community Schools. Ten students from each participating community between the ages of nine and twelve were involved in a twelve week seminar program. The first six weeks were spent at the Cambridge Montessori School; the last six were spent at the Highland Park Free School. Students met one day a week during this period for the following activities: academic seminars (Drama, History of Games, African Folktales, and History of the Earth), group meetings (discussions, resource sharing, and simulation games), a physical education program, and an afternoon arts program given at art resource organizations in each community. The project ended with a weekend retreat that provided students and staff the opportunity to interact and cooperate on an even closer basis, and to share their learning experiences. A main objective of this program was to make use of the unique resources of the two communities involved (Cambridge and Roxbury) and to involve parents, students and teachers in the development and on-going planning and evaluation of the program.

Afro-American Resource Center

Participating Districts
Cambridge, Watertown,
and Boston

The Afro-American Resource Center has provided programs in teacher training in Afro-American Studies and in curriculum development throughout Massachusetts, as well as publishing and producing related educational materials. The Museum of Afro-American History has compiled an extensive collection of documents and pieces reflecting New England's major role during the abolitionist era and has developed a Black Heritage

Afro-American Resource Center continued	trail to train students as junior curators in the necessary research and technical skills. Their joint project involved taking the initial steps toward merging the two organizations in order to establish a permanent institution that will use the Roxbury community as a learning environment in minority and Afro-American history.
Metropolitan Cultural Alliance Participating Districts Burlington, Stoneham, Waltham, Watertown, Randolph and Boston	Metropolitan Cultural Alliance developed several programs for students in the communitie of Boston, Burlington, Randolph, Stoneham, Waltham, and Watertown. In the past, schools in the Greater Boston area have used the resources of many cultural institutions and performing groups to provide enrichment experiences for their students but most of these were designed as one-time field trips to an institution or single performances by a company at the school. In collaboration with a number of cultural institutions, such as the Museum of Fine Arts, the Museum of Transportation, Pocket Mime, Stage One Theatre, the Children's Museum, and Concert Dance, MCA developed curriculum package that provided for a more extensive and systemat use of these institutions' resources. These programs are geared for elementary, junior high and high school students. They include: Waterways, Celebration of the Sun, Tribe, Americans, Environmental Puppet Drama, Moving Game, Movement & Dance, Doctor Opera and American Experience.
Roxbury-Dorchester Communities As An Environmental Learning Laboratory Participating Districts Weston and Boston Students Involved 50	The Roxbury-Dorchester Community Beautification Program conducted a program for sixth and seventh grade students from Weston and Boston. The aim of this program was to bring together students from diverse racial, socio-economic and cultural backgrounds in a learning environment in which horticultural skills and knowledg could be developed and human relations skills acquired. The participating students met for a six week period at the Franklin Park Rose Garden. Through the process of rejuvenating this garden, the students acquired skills necessary for planting, preparing and maintaining a garden site. In addition to these tangible skills, they developed an introductory knowledg of plant biology, soil composition, and soil care. By the end of the project, interchange was quite free and animated; the students enjoyed the project and their new and very different acquaintances.

EXHIBIT V-4

DESIGN OF LEARNING ENVIRONMENTS GUIDELINES FOR WRITING THE FINAL REPORTS*

GUIDELINES FOR PLANNING AND PILOTING PROJECTS

1. Method of teaching
2. Interaction among and between students, teachers and community resource people
    a. substantive program
    b. structure of program formal/informal location
    c. scheduling
       timing (frequency)
       amount of time (length)
    d. characteristics of students and teachers (staff)
    e. training of teachers/resource people
3. Budgeting/finance
    a. per capita
    b. program budget cost out
4. Governance structure
   (Advisory committee)
5. Replicability potential
6. Expansion potential
    1. resources available
    2. attraction
        a. students
           --substance
           --timing/scheduling
           --location
           --who offers credit?

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*These are general guidelines for all projects; however, in addition to these, specific attention must be given to the workings of your own project; objectives, programs towards achieving them, specific problems, and so forth.

b. headmaster/principal
   --(sound administrative organization)
   --usefulness of program
   --cost
   --ease of entry in school district

c. teachers
   --pay differential?
   --desire to know
   --professional experience
   --desire to do something of relevance
   --admin., organ. sound

Evaluation

1. Have objectives been met?
2. Relation of process, its dynamics, towards meeting project objectives.

GUIDELINES FOR PLANNING AND PROJECTS CURRICULUM

1. Research design:
   Who was involved? Resources?
2. What needs does it seek to meet?
3. What kinds of skills will it develop, social as well as intellectual?
4. Yield in terms of human inter-action (students, teachers, etc.)
5. To whom is this planning addressed? age group? race? socio-economic?
6. How will it meet individual needs? special needs?
7. What are supplementary resources necessary for implementation of this package?
8. How will it integrate into the total curriculum? inter-disciplinary aspects? school's philosophy?
9. Is evaluation of the curriculum part of the package? Is it on-going? Who will participate in its evaluation?

A series of dissemination meetings and technical assistance workshops were scheduled by the Community Participation Component to provide assistance in proposal writing and formulation of ideas as was described earlier in this chapter. There was a participatory process in sharing information and in matching program ideas, school systems and community groups.

People were encouraged to define their own goals and state not only problems of reaching those goals, but also possible solutions. Therefore community input was outlined, as discussed in the Community Participation Model. First, workshops were held for community and school groups to develop proposed solutions into feasible projects. In these workshops, collaborative arrangements were formed between minority groups and majority groups and patterns began to emerge which could form possible planning alternatives. Then a series of technical assistance meetings were held to review contract specifications and provide individualized assistance in proposal writing. The staff believed that grass roots participants would not feel that they were penalized or at a disadvantage because they were inexperienced in turning out "glossy" proposals. A citizen review panel of city and suburban dwellers consisting of students, teachers, Superintendents, and community education activists were selected to evaluate the proposals and make funding recommendations to the Governing Board. They used the decision matrix developed for these purposes. (see EXHIBIT V-2)

A decision matrix was developed by the Research team drawing upon the guidelines from the project mandate as well as from community input; this was the criteria by which the most feasible projects for testing would be chosen. Emphasis was placed upon demonstrated understanding of the purposes and goals of MPP: The reduction of racial isolation through improved educational opportunities for all students; substantive participation by parents, students, teachers, and other citizens in the proposal development; input from the minority communities in the planning stages; inclusion of minority students in an equitable way in the planning stages; inclusion of minority students in an equitable way in the project itself; inclusion of minority personnel on the staff and governance structure; innovative, yet practical programs so as to attract participation on a voluntary basis; and involvement of as wide a range of school districts, community agencies, and educational/cultural institutions as possible.

A total of seventy-eight proposals were generated in this incentive process for the $300,000 for those proposals which met the criteria for planning and piloting. This result established the validity of the methodology. There were 32 school districts participating and individual schools. Nearly 4,000 students would have been involved. Private non-profit groups as well as public and private schools entered the competition. Parents, teachers and students participated. Forty proposals were concerned with curriculum development, 21 with staff development, and 12 with environmental studies. The remainder touched a number of areas of interest. Major themes in these proposals included: cross cultural understanding; responses to student and community needs; staff, community, student development for attitudinal change; legal and structional changes; and interdistrict cooperation.

Utilizing the matrix guidelines as well as many other standards mentioned above, the review panel selected and made recommendations for 14 projects which could be funded within the $300,000. These fourteen then went before the Governing Board for final approval. The Governing Board revised the panel recommendations and submitted the projects to the Office of Education. After a three month delay, during which time Washington played an increasingly strong role regarding the technical/legal refinements necessary for each project's approval, these 14 projects were granted Office of Education approval. (see EXHIBIT V-3)

This delay had a significant impact upon the operation of the DLE projects in that they began late and were not all able to complete their objectives. There was an on-going monitoring function to provide an overall MPP context within which the DLE's function which gave assistance in programming and promoted cooperative ventures among the 14 projects. The monitoring provided on-going evaluation of the progress of each project towards achieving its stated objectives. A final report was produced by each project, which, along with the monitoring and on-going evaluations, utilized the analytic framework described in EXHIBIT V-4 for assessing replicability and expansion of the project.

The DLE projects served as "laboratories" to provide real experiences as the basis for testing which factors promote cooperation in the metropolitan community and eliminate racial isolation. Such laboratories suggest both the richness of the education resources of the region and the willingness of school district and community groups and cultural institutions. This voluntarism is indicative of a potential willingness to respond to even the limited incentives provided for the DLE's.

The timing delays and eventual funding schedule constrained the utility of the findings from the DLE projects. Nonetheless the experience of developing proposals, providing assistance to previously unfunded groups and generating new collaboratives for specific metropolitan educational program innovations supported the alternatives presented in Part Three: OPTIONS. The experience in the feasibility year shows both the readiness of different groups to collaborate for the MPP mandate and the relative paucity of venture funds for incentive programming. Finally, as the supporting materials in VOLUME II, PART THREE and VOLUME IV demonstrate, the entire thrust of the DLE effort -- with its priority of innovation and non-traditional settings -- allowed a freedom and willingness to experiment to surface. The very title of thi effort, stressing design and learning environments rather than programs and schools, suggested this freedom; it proved a most useful resource in the initial phases of developing participatory planning in and outside of the education community for voluntary metropolitan education programs.

Planning Information

While only 14 of the 78 proposals could be funded with the $300,000, the process yielded valuable planning information. (See Tables V-2, V-3, V-4.)

The information which were derived from the data generated through this proposal and review process included eight education program planning guidelines:

1. Programs recommended should be voluntary both on the part of local schools committees as well as individual parents ;

2. Planning for implementation of programs should include parents as well as school people ;

3. Planning groups and governance structures should represent equity in that up to fifty percent of the persons involved should be minority persons ;

4. There should be a recognition of the pluralistic nature of our society, with the programs enhancing pride in one's own cultural and racial background as well as promoting appreciation of that of others ;

5. There should be an awareness that each minority group has differing aspirations and perceptions about education. Therefore each group must define "quality" education in its own terms and assess its needs accordingly. Any program developed to reduce minority student isolation should take these differencences into account ;

6. In any effort to reduce student racial and ethnic isolation, a corresponding effort should be made with school staffs and parents. Staff development and parent participation programs are to be included as a part of all program plans. In fact, without this effort it is doubtful that a great deal of voluntary effort can be made in programs for children;

7. Programs recommended must be interdistrict -- that is, effected through a collaboration between two or more districts;

8. A many sided view must be demonstrated in solving the problems of racial isolation. Too often, in subtle ways, the "blame the victim" tendency is reflected, not only in casual analysis, but in generating strategies and solutions. Often projects designed to reduce isolation have placed the burden upon members of one community (usually from the inner-city), to travel, to be flexible, and to make concessions. Whether intended or not, such arrangements necessarily foster a patronizing attitude in which one community (the suburban) has everything to teach and to offer, and that the other community (urban) has everything to learn and receive. Equal emphasis should be placed on bringing suburban youngsters onto third site learning environments.

TABLE V-2

ANALYSIS OF PROPOSALS SUBMITTED
Through the Design of Learning Environments Component
of the Metropolitan Planning Project

PROPOSAL ELEMENTS	INVOLVEMENT
Number of proposals	78
Number of towns & cities involved	30
Number of schools involved	93
Proposals which had L. E. A. approval	33
Total $ requested	$2,472,233.00
Number of projects funded	14
Number of $ awarded	$300,000.00
Proposals involving public schools	49
Proposals involving private schools	19
Proposals involving students and/or teachers in planning	44
Proposals having community agency involvement	21
Proposals having involvement of institutions	38
Proposals involving elementary students	28
Proposals involving junior high students	19
Proposals involving high school students	33
Number of children involved in all proposals (above is exclusive of audiences and indirect invlovement, such as using materials developed)	3,397
Proposals for planning projects only	18
Proposals for pilot projects only	2
Proposals for planning and piloting (some were indefinite about above)	42
Proposals concerned with staff development	21
Proposals concerned with curriculum development	40

Source: MPP Field Agents, 1973

TABLE V-3

AREAS OF CURRICULUM CONCENTRATION
In Proposals Submitted to the Design
Of Learning Environments Component of the
Metropolitan Planning Project

Curriculum Area	# of Proposals
Environmental Studies (ecology, outdoor ed., nature)	12
Cross-cultural Understanding	9
Urban Studies	6
Teacher Training/Staff Development	6
Sociology/ Social Issues	5
Arts & Crafts	5
Career Education	4
Cross-age Teaching/Tutoring	4
Visual Communications (video, film, photography)	4
General Social Studies	4
Theatre Arts	3
Afro-American Studies**	3
Hispanic Studies	3
Student Internships***	2
Economics	2
History	2
Music	2
Transportation	2
Dance	1
Art Appreciation	1
Business	1
Sports	1
Special Education	1
Politics	1
Computer Programming and Operation	1
Native-American Studies	1
Nutrition and Health	1
Science Fair	1
Asian-American Studies	1
Research and Planning	1
Law	1

Notes:
Some proposals did not indicate area of curriculum concentration; others were very general. Almost all of the proposals were concerned with cross-cultural understanding; the above 9 were primarily concerned with it.

**Many of the proposals were concerned with Afro-American studies (and Hispanic-American, Chinese-American, Native American), but the 3 above were primarily concerned with it.

***Three other proposals included an internship type of program, but the internships were tied in with an overall curriculum design.

Source: MPP Field Agents, 1973

METROPOLITAN PLANNING PROJECT

TABLE V-4

MUNICIPALITIES INVOLVED IN DESIGN
of Learning Environments Proposals

Municipality	# of Proposals	Municipality	# of Proposals
Boston	47	Concord	2
Brookline	14	Reading	1
Cambridge	11	Somerville	1
Lexington	8	Medford	1
Newton	7	Salem	1
Lincoln	6	Marshfield	1
Needham	5	Stoneham	1
Wellesley	5	Holliston	1
Waltham	3	Ashland	1
Sudbury	3	Dedham	1
Framingham	3	Westwood	1
Burlington	2	Arlington	1
Randolph	2	Acton	1
Weston	2	Natick	1
Wayland	2	Boxborough	1

Note: Some proposals did not specify towns; others implied that all towns in the metropolitan area would be beneficiaries.

Source: MPP Field Agents, 1973

CHAPTER VI ISSUE IDENTIFICATION

CHAPTER VI

ISSUE IDENTIFICATION

Introduction

The issues involved in the development of a feasible long range plan for the elimination of racial and ethnic isolation of students in the Boston metropolitan area are numerous and complex. The Support Research Component of the Metropolitan Planning Project through its Community Profiles and related analyses attempted to identify and analyze these issues.

In general, many of these issues focus around the connection between various functional living systems and the education system and the impact that their interrelationships have on minority group student isolation. Four prime issue areas were identified for discussion: governance, tax policy, transportation, and housing.*

Persons dealing with each of these areas were requested to write a paper explaining these interrelationships. Each was asked to describe the current situation in the field and changes which were necessary in order to meet the goals of MPP. Among the purposes of presenting these position papers is the promotion of a dialogue between professional educators, community groups, and professional planners in different fields to explore the possible means of effecting the MPP's mandate; the studies which follow are challenging and provocative and serve as a first step in this direction.

One issue is currently so pervasive that while it has tremendous impact on school systems it has an equally significant impact on all other parts of the economy: the energy shortage. There are currently many recent works discussing its impact on education: the heating and construction of school plants, on transportation of children and teachers and also on the more creative aspect of this situation, the impact on curriculum and programs. The situation has many challenges for education. Foremost among them is the need to provide learners with instruction in the values and techniques of conservation of energy of all kinds and the skills necessary to provide them. In addition, the "energy crisis" of last winter had the immediate impact of causing the staff to think about imaginative and economical utilization of mass transportation in order to meet the goals and objectives of the Project. These thoughts are amplified in Chapter VIII "The Alternative Plan", as are the issues raised in the papers which follow.

Governance and Tax Policy

Governance and tax policy are the two basic process through which the educational system is structured. They are the prime determinants of educational opportunity. Furthermore, the processes themselves are interdependant making discussion about each alone impossible, a factor which is reflected in the papers which follow.

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* A position paper on education trends by Joshua Shuchatowitz and Jack Rogers was incorporated into Chapter VI "The Alternative Plan."

Professor William T. Lowe, of the University of Rochester,has been a teacher and a trainer of teachers for the past two decades. In his paper, "Metropolitan Solution to Urban Educational Problems" he states that all school districts must decide "what should the school try to accomplish, who should decide, and how should these decisions be made". He goes on to suggest that if one goal of schools is to eliminate racial isolation and concommitant inequities then a metropolitan basis is appropriate to carry out this task. Included in the paper is an analysis of various metropolitan educational governance structures which discuss the strengths and weaknesses of each type, as well as their appropriateness to our current situation and goals.

"Who pays for schools?" and "How do they pay for them" is the focus of Catherine Minicucci's paper in "School Finance Trends in Massachusetts". Mrs. Minicucci is an Associate Planner, in the Office of Executive Planning of the Massachusetts State Department of Education and has spent this past year analyzing alternatives to the present method of financing public schools in the Commonwealth. The study emphasizes and explains the importance of local property taxes to support individual municipal school systems. This method of financing education sustains a pattern of unequal educational opportunity between city and suburb. This condition also makes voluntary collaboration among Boston metropolitan area school districts difficult, yet such collaboration is vital to the elimination of racial and ethnic student isolation.

Transportation and Housing

Existing housing and transportation policies are the basic causes of present residence patterns in the Boston metropolitan area, which in turn cause minority group student isolation. Both Federal and State laws encouraged suburbanization. The central city and inner suburbs were left to the poor. In New England,this includes the disproportionately large number of minority group members. According to experts in these areas, these policies may be changing.

The practitioner's perspective on the interrelationship between transportation and education is presented in "Pupil Transportation and the Elimination of Racial Isolation in Education in Metropolitan Boston". This paper was prepared by Robert Hayden who is the former Executive Director or METCO, a voluntary interdistrict transfer program through which nonwhite Boston students are enrolled in suburban schools. In discussing advancing transportation technology, he observes, "ironically, one of the strong factors that has contributed to segregated schooling must now be used to undo the harmful effects of segregated schools and to help reconceptualize what education really is and can become". Mr. Hayden also advocates the cross-bussing of city and suburban students together to thir site learning environments in addition to the existing interdistrict programming situation. Finally, he suggests transportation alone is not the means of bringing different types of students together, but rather this meeting ought to be supported through newly designed curricula and with other supportive services.

A contrasting discussion of the interrelationship between transportation and education is offered in "Transportation in the Greater Boston Area". The paper was prepared by James P. Brennan, a transportation planner with an engineering background, who is currently a member of the Central Transportation Planning Staff which deals exclusively with the Boston metropolitan area. Mr. Brennan suggests that state and federal highway building policy until the early 1970's led to expansion of the suburbs and increased racial isolation in residence patterns. It is further suggested that Govenor Sargent's policy of no highway construction within the urban perimeter and the expansion of rapid transit services by the Massachusetts Bay Transportation Authority (MBTA) will lead to a renewal of the resources of the city of Boston. It will also increase mobility on the part of minority group persons which will enable them to live in the suburbs.

Housing and education are characterized as "systems" which are parallel networks which affect and influence each other but which do not work in tandem, in a paper prepared by Thomas E. Nutt, of the Massachusetts Institute of Technology and Bonnie R. Powell, from the Office of State Budget and Management. The authors suggest that the present settlement patterns reflect racial isolation among the total population of the SMSA not just its children. Many factors cause the lack of access to suburban housing and subsequent concentration of non-whites in the city of Boston including the price of homes and rental units in the suburbs, the percentage of suburban housing stock which is owner occupied, and the small number of subsidized units which have been completed in the area. These factors have been compounded, according to the authors, by various overt and covert forms of discriminatory housing practices. They suggest many tools which presently exist which could effectively change the current situation if they were utilized, including Chapter 774, the "Anti-Snob Zoning Law".

METROPOLITAN SOLUTIONS TO URBAN EDUCATIONAL PROBLEMS

Prepared for
The Metropolitan Planning Project

William T. Lowe

The Problems and the Past Attempts Toward Reform

Urban public schools are, more than ever, in deep trouble. Some of the problems don't seem to be publicized as much as they were in the late 60's and the early 70's, but they have remained and they fester and grow. Racism, classism, ethnocentricism, sexism, violence, a chronic shortage and an unequal distribution of funds, low academic achievement, low morale, drug abuse, attendance problems, work stoppages, poor communication, noise, vandalism and so on--they are still very much present in urban schools and, I believe, even more so. Not that there haven't been attempts at reform. On the contrary, there have been countless efforts and some of them have been entirely sincere. They have been classified into four broad and overlapping categories.

First, and least radical, is compensatory education. If we just do more of what we are already doing and maybe do it a little better, the argument goes, then we will solve these problems. Proponents insist that if we experiment with the variables of time, staff, organization, materials, teaching strategies, and if we supply adequate funds, we will find the solutions. Thus, we find efforts to have smaller classes, better instructional materials, revised curricula, more supplementary personnel, better teachers, more time, earlier intervention, more indigenous adult models, increased parent education, expanded career education, improved staffing patterns, expanded bilingual or multi-cultural efforts, and so on. Head Start, Follow Through, More Effective Schools, Right to Read, Teacher Corps, Upward Bound, and hundreds more have been tried. Largely, they have failed. To be sure, there have been some modest gains here and there on some cognitive or affective measures. For example, see the IT WORKS series published by the U.S. Office of Education. But the programs overall cannot be rated, successful. The HEW summary of research on compensatory education, that was a basically political document intended to pressure the Congress to fund more heavily the compensatory education movement put it flatly,[1] "We know that Federal compensatory education has not been successful as a whole."

The second category includes the whole range of administrative devices and experimental efforts intended to racially integrate or at least desegregate our schools. Drawing on the "Coleman Report", Racial Isolation in the Public Schools and numerous other smaller studies, proponents of this position have argued that unless class and, therefore, racial segregation is overcome, the schools can never do an effective job with the economically disadvantaged. With fairly consistent support from the courts since Brown vs. Topeka in 1954 (and even before) every city school district has been experimenting with a variety of desegregation attempts. Pairing, zoning, educational parks, open enrollment, new construction, magnet schools and so on including that suddenly explosive concept, busing, have been tried. Where class mix has been achieved there has frequently been some educational progress,[2] but this mix has rarely occurred or endured. Some smaller cities such as Berkeley, Sacremento, Charlottesville, and Providence and some suburban districts have been successful in legislating desegregation. Further there have been some modestly effective voluntary programs - METCO in Boston, Project Concern in Hartford, Urban-Suburban Transfer in Rochester, New York, are the best examples. But housing patterns; the middle class exodus, including blacks to the suburbs; employment opportunities; lack of political leadership; and racism, blatant, ugly racism, along with some other less obvious factors have prevented this movement from much real achievement. Racial and class isolation, particularly in our large cities,is more pronounced than ever.

The third reform impulse was localism or community control. The rationale went, since compensatory education has largely failed and since the same is true of integration or desegregation, then let's break up the huge unresponsive, failing, bureaucratic urban central city school districts and give the power and the money to local neighborhoods. After all, they said, we know what best for our children, and our suggestion, after all, is not radical. All we want is the same power that suburban districts have had for ages. First the blacks and then white ethnics, particularly, where the blacks had achieved or were coming into the majority raised this cry.

The idea hasn't been adequately tested. There hasn't been time. But the attempts to date have to be rated, failures. Political chaos has resulted and little if any achievement gains have been realized. Most of the local control or even the milder decentralization efforts that we know about have either been abandoned or have been so watered down that power resides where it always did and the situation continues pretty much as before.[3]

The fourth group of reforms were more radical in nature. They were built on the premise that public schools as we know them can't succeed, at least they can't adequately serve many young people not only from our cities but everywhere else. We need according to these reformers, alternatives, a wide range of choices which must be publicly supported. We must turn to anyone and everyone who has a viable idea about education - churches, colleges, unions, civic groups, business and industry, ethnic groups and so on. Give them the money or give the money directly to students or their parents and, then, give the learner or his advocates the right to select from the resulting alternatives. The idea has taken many different and conflicting forms - free schools academies, performance contracting, voucher plans and so on. The notion has been supported by strange bedfellows from the "far right" and from the "new left". Some contracts have been let even to teachers organizations. Some voucher experimentation has occured, for example, in San Jose, California, and other experiments are being discussed (e.g. the entire State of New Hampshire may well try one form of voucherism). Militant Blacks have established some schools operating through the Council of Independent Black Institution. Many so called free schools and open schools and schools without walls both within and outside public school systems have come and many have gone. But, the movement has not gone far. Teachers' organizations are generally in opposition and there are enormously complex legal and fiscal problems involved. First and Fourteenth Amendment problems abound. In terms of the numbers of students served, little has been accomplished, and this is particularly true in urban settings. The hard core urban poor are not being served.

Recommendations

What can be done about the agonizing problems of urban education? The truth is, I don't know. Since I don't and since no one else seems to either, for the short run we must continue and greatly increase our efforts and resources to search for solutions. I would urge that we continue and expand efforts in all four of the directions previously identified. That is, despite the generally dismal evidence for compensatory education, integration, local control and alternatives,and despite the fact that aspects of these four are flatly contradictory with one another, I would push ahead with the best of each. Clearly we need special effort where the needs are especially great; thus, we must compensate. Further, we must do everything possible to eliminate cultural isolation without sacrificing individual liberties. (I will have more to say on this point later). And, we must decentralize authority and give the client real access to decision making. Finally, we must explore alternatives making certain that we don't compromise the fundamental principle of public accountability under the law for the spending of public funds.

We need to build on our modest successes and try again on those failures that seem to merit revision and retesting. Further, we must search for new models. The uncomfortable fact is that the urgency of the need for solutions and the lack of thoroughly researched means for achieving them demand that we go off in many conflicting directions at once. Tidiness and consistency are virtues we can ill afford.

Over the long haul we need to achieve three broad goals. Space will only permit me to mention them here but they are clearly consistent with the thrust of the proposal to which this position paper is attached and elaborations of them are found in the main document.

First, we need to clarify what it is specifically that we want our urban schools to accomplish, and the "we" in this statement emphatically must include the clients to be served. This needs to be done in every community in America. We do not agree on our priorities for the schools and this is a healthy state of affairs that probably will always be true. What is unhealthy and what must be corrected is that we seem to be unwilling or unable even to seek sound locally acceptable answers. I am talking about the fundamental curriculum questions - what should the schools try to accomplish, who should decide, and how should these decisions be made?

Each of these questions is profoundly complex. For example, answers to the first would need to resolve the thorny issues concerning priorities in terms of cognitive vs affective vs psycho-motor goals. Should schools be societally focused or individually focused or, somehow both? Should they be all-purposed multi-purposed or more narrowly gauged? Should we have general or particular education, in common or specialized institutions? These are difficult issues but they must be resolved before we can hold schools accountable.

After the goals are determined locally under broad state guidelines, then the most appropriate and efficient means for accomplishing them must be found. Teachers and other educators will probably carry the major burden in this effort. The means must, however, be consonant with an open, integrated, humane environment. More on this in a moment.

Then, of course, adequate funds are needed to carry out this educational program. In my judgment this is the least difficult goal to achieve of the three. There is no question that our society can afford the kind of education it needs but major changes must be affected to collect and distribute the necessary support fairly. I think we know what these changes should be. They involve full state funding and a de-emphasis on the local property tax. Fortunately, there are a number of excellent discussions of the changes needed readily available, so nothing further on the subject is needed here except to say that this is a values question.[4] We must simply decide to put our money where the needs are in the most efficient possible way.

We have been talking very generally and rather glibly. Let me be more specific in the space remaining concerning one vital aspect of these recommendations. My second point above noted that we must find the appropriate means for achieving the carefully determined local educational goals. In my view, it is essential that in our cities these means be lodged in a regional or metropolitan context.

Rationale for Metropolitanism in Education

The Boston SMSA has been described earlier. It clearly has unique assets and some special liabilities, but in many ways it is like every other large urban region in America. That is, it is a complex, densely populated area, sprawling across a multiplicity of overlapping political units - cities, towns, unincorporated places, school systems and a whole host of special purpose service districts whose boundaries conflict with one another. Inadequate and in some areas nonexistent central planning and coordination, pointless and sometimes destructive competitive internal and external rivalries, ambiguous state and federal leadership, isolated ethnic, racial and socio-economic neighborhoods, and severe funding problems characterize most if not all of the approximately 250 SMSA's of the U.S. Transportation, protection of the environment, sanitation, utilities, recreation, land use, housing, police and fire protection - all of the essential services including education are offered in a fragmented, thoroughly unplanned way.

I believe that it is essential to coordinate education on a metropolitan basis in order to achieve the following:

- To provide special curricula for atypical needs, e.g., special educatio for the handicapped, sophisticated occupational programs, and advanced offerings for the gifted.
- To provide a greater racial and class mix which is demonstrably associa with improving the quality of opportunities for the "educationally disa taged."
- To provide for greater equity in the collection and distrubution of fun for education.
- To deal more effectively and efficiently with personnel matters, i.e., recruiting, negotiating, utilizing special skills and competencies, and providing inservice programs.

- To obtain more and better educational research and development activities and to disseminate the findings from these efforts more effectively.

- To achieve better and more efficient administrative and business services, e.g., data processing and retrieval procedures, central accounting, common purchasing, improved transportation services and so on.

- To reduce overlap and redundancy of services.

- To obtain and distribute instructional materials, equipment, and facilities on a more equitable basis.

Possible Models of Metropolitanism in Education

There is no single organizational model that will work in all metropolitan regions. Many possibilities exist. Several fairly sophisticated attempts to describe and classify these models are in the literature.[5] What follows is a rather simplistic overview of the more obvious types.

1. Voluntary Cooperation Among Educators and Others In this model educators from both private and public institutions and including both lower schools and higher education decide to work together. This is happening to some degree in nearly every SMSA in the U.S. Usually the need to join with other non-educational agencies and individuals becomes apparent.

The point is that autonomous school districts and others agree to share and cooperate in the provision certain services that they can't efficiently and equitably provide by themselves. Component districts contract with others for clearly specified programs at a designated cost. They buy what they want and refuse what they don't want, and have, therefore, complete ultimate authority. The major virtue of voluntarism is flexibility, easy in - easy out, localism.

But this freedom has flaws. The lack of central power results usually in precious little coordination. The vagaries of the moment instead of long range planning and problem solving usually control the situation. Regional interests are ignored or minimized.

As a kind of offshoot from this model, and to try to deal with its disadvantages, frequently a central coordination body has been formed at the behest of the component districts. A number of states have recognized this phenomenon through permissive and supportive legislation. Metropolitan intermediate districts have been formed. The twin cities in Minnesota, Wayne County and Detroit in Michigan, San Diego County and San Diego City in California are examples.

These operations are still voluntary. Component districts buy the administrative services or the educational programs they want, but there is some central coordinating body that does concern itself with research and development on regional needs and desires.

Drawing on the county system of schools that has existed throughout our history in some parts of the country,and on the newer intermediate district movement that was originally conceived in many places to help very small rural districts, the metropolitan voluntary intermediate district idea seems to be popular. Some of these districts can own property, levy taxes, and with original consent of the components bind such sub-districts to pay for specified services. Some states are moving vigorously to encourage these developments. Frequently, these intermediate districts have become a focus of effective lobbying power in state legislatures. However, developments in this direction are decidedly uneven. In some places the metropolitan agency is almost without power and influence. The intermediate district does what it is told to do by local districts and this isn't much. Real coordination by almost any definition is lacking.

2. Metropolitan-Regional Government with Education as a Component An all encompassing metropolitan government does not exist in the U.S., but there are some examples of merged city-county governments that approach this concept. Nashville-Davidson County Tennessee is, perhaps, the best example. A single government and an associated single school district were developed. With our fear of bigness in local government and with the serious legal obstacles that exist, this model doesn't seem very feasible in most of the U.S. It should be noted that it is more likely to occur in the southeast where relatively powerful county governments have existed since colonial times.

Theoretically, however, there are obvious advantages - comprehensive planning, forced interdependence of education with other public service areas, equity in financial matters and so on. Likewise, there is the real possibility of an even bigger, more unresponsive structure then we find in our large cities today and the involvement of local citizens is possible in this model (and has been achieved in Nashville in part) but it is difficult.

3. A Federated Metropolitan Government Including Education In this model separate political entities remain, but certain of their functions are transferred to a central metropolitan government. The local components send representatives to govern the larger unit. Toronto, Ontario, has a remarkably effective system of this sort, but there are no examples extant in the U.S.

In the Toronto case there is both a regional government and a metropolitan school district. They are closely interrelated. For example, the metropolitan planning office must approve of all new school sites thus making certain that educational planning is based on the best available demographic and land use data. Within the educational governance structure the component districts have a great deal of autonomy over such things as curriculum, but the power of the purse resides in the central authority.

There are readily apparent virtues to this model. Local interests are maintaine but, at the same time regional concerns are dealt with by a unit that has the requisite power. There is regional equity and efficiency and, concurrently, local decision making.

But Toronto is in Canada and in other ways the situation is vastly different. Provincial governments are stronger than our state governments; home rule is not issue there that it is here. The Parliamentary system does not separate the executive from the legislative, the church-state issue has been comparatively resolved as far as schools are concerned, there is not a black/white problem in this bustling metropolis, and many other significant differences exist. While I favor this model, I think the likelihood of achieving it in the U.S. is very slim.

While this student of metropolitanism in education likes the federated model best, he believes a form of the voluntary model is more feasible. He sincerely hopes that the Metropolitan Planning Project building on the highly significant structure already existing in Boston will be able to devise a voluntary system that works. Local involvement must be maintained and strength ened. Cultural pluralism must remain as a part of the foundation to the structure. The "melting pot" notion is not a desired end.

I am absolutely convinced that if efficient and economical planning and administration of education are truly desired; that if providing high quality education to all is earnestly wanted; and that if economical and equitable financing of education is honestly sought; then a coordinated metropolitan approach is required. We cannot afford class and racial isolation. We cannot allow disjointed, haphazard, unplanned, unequal, overlapping educational opportunities to continue to be the only arrangement available to most urban Americans.

I would not presume to suggest the particular form the Boston region should adopt. However, I believe the following are necessary conditions:

1. There must be a metropolitan educational governance unit with sufficient power and finances to achieve regional goals. The unit must be broadly and truly representative of the people of the region and be controlled by the public;

2. The unit must have both planning and operational powers in specified and generally agreed upon areas. To mention one specific example it might well handle collective negotiations with personnel;

3. The central unit should have a single strong executive;

4. It should have close productive relations with other educational agencies and institutions in the region - libraries, museums, the media, private shcools, colleges and universities, public health, pre-schools, performing arts groups and so on;

5. Likewise close ties with the general political structure of the region must be achieved;

6. The unit needs fiscal power-planning, assessment, budgeting, taxing; and distribution of funds should reside with the unit. At the very least, there must be regional input into fiscal matters;

7. The unit must have solid working relations with the state including the state education department and the legislature;

8. There should be working arrangements with other similar regional educational authorities in the State;

9. The component districts must be large enough to be efficient and small enough to be responsive;

10. Both at the regional level and, of course, at the local level a high degree of citizen involvement must be maintained.

This educational structure must be located in an economically, socially and politically healthy metropolitan region. Boston clearly meets this criterio

Much work is ahead.

NOTES

1. The Effectiveness of Compensatory Education - Summary and Review of the Evidence, Department of Health, Education and Welfare, 1972. p. 13.

2. Many studies supporting the positive effects of integregation are summarized in, Racial and Social Class Isolation in the Schools: Summary Report, Division of Research, New York State Education, February, 1970. For a detailed study of the detrimental effects of an abortive attempt to desegregate the schools see, Rubin, Lillian B., Busing and Backlash, White Against White in an Urban School District, University of California Press, 1972.

3. Probably the best general accounts of local control efforts are found in: LaNoue, George R. and Bruce Smith, The Politics of School Decentralization, D.C. Heath and Co., 1973. Levin, Henry M., Ed., Community Control of Schools, Brookings Institution, 1970. Fantini, Mario, Marilyn Gittell and Richard Magat, Community Control and the Urban School, Praeger Publishers, 1970. Fantini, Mario and Marilyn Gittell, Decentralization: Achieving Reform, Praeger Publishers, 1973.

4. Three of the best discussions of new ways to finance schools are: Alternative Programs for Financing Education, National Education Finance Project, Vol. 5, Gainesville, Florida, 1971. Report of the New York State Commission on the Quality, Cost, and Financing of Elementary and Secondary Education. New York State Governor's Office, 1972. See particularly Vol. 1. Reischauer, Robert and Robert Hartman, Reforming School Finance, Brookings Institution, 1973.

5. The most complete summary of the various models of metropolitanism in education extant is found in McKelvey, Troy V., Ed., Metropolitan School Organization, Vol. I, Basic Problems and Patterns, and Vol.2, Proposals for Reform, McCutchan Publishing Corporation. 1973.

SCHOOL FINANCE TRENDS IN MASSACHUSETTS

Prepared for
The Metropolitan Planning Project

Catherine Minicucci

Introduction

The structure of a state-local finance system is an underlying set of conditions for public education in any state. Although often regarded as an abstract topic by practicing educators, school finance ultimately affects whether children will have access to vocational training, science laboratories or speech therapists. Who pays for schools? How do they pay for them? These are the basic questions in school finance. This paper will attempt to describe in simple terms how state financial support for education affects the schooling of children in metropolitan Boston. The state aid system and emerging trends in Massachusetts school finance will be outlined. The paper seeks to demonstrate the dynamics of school finance issues while offering no single solution.

State and local governance of education

Theoretically in the United States, education is a state responsibility. States vary in their financial assumption of that responsibility. In Hawaii and New Mexico, the state finances all of education and determines the programs of public schools. In Southern and Western states, state revenues provide the major source of school support. School districts in these states are taxing authorities. They levy property taxes and receive state aid directly. School districts do not conform to municipal boundaries.

Historically, in Massachusetts the state has left the financing of education to local governments. Responsibility for education is shared by state and local authorities. The state's responsibility in education is established in teacher certification laws, minimum hours and days of school, limitations on the rights of school committees (who are legally officers of the state) and so on.

As officers of the state, school committees have fiscal autonomy. Town meetings and city councils are required to levy sufficient taxes to meet school budgets. In return, the town treasury accepts state aid for education and is ordinarily free to use it for all municipal purposes. In Massachusetts, all districts conform to city and town boundaries.

In recent years, municipal officials have attempted to alter the fiscal autonomy of school committees through legislation. The primary argument voiced for removing autonomy is financial: municipal officials wish to directly affect school budgets which must be supported through local property taxes. Education's unique status as a state service locally financed is increasingly difficult to maintain.

School support: the local share

In 1972/73, the total cost of public schools in Massachusetts was $1.614 billion. Of that amount, only 30% ($484 million) was provided from the state and only 5% ($67 million) from federal sources. The remaining 65% ($1.049 billion) is raised through local property taxes. From a national perspective, Massachusetts assumes a relatively small portion of the cost of public education. Massachusetts ranks 45th in the nation for state support of school costs.[2]

Such a heavy reliance on local tax-paying ability results in the inequity deplored in the serrano decision: a child's education depends on the wealth of the community in which he or she resides. The figures in Table 1 illustrate this situation in metropolitan Boston.

Table 1

LOCAL WEALTH AND LOCAL EFFORT: SELECTED COMMUNITIES

	Equalized valuation per child: 1972	School tax rate: 1973*	Local effort per child: 1972/73**
Boston	$16,581	$35.54	$1160
Scituate	$21,611	$28.24	$841
Ashland	$22,736	$32.45	$904
Milton	$44,129	$16.61	$1163
Dover	$49,034	$23.66	$1324

*Tax rates are expressed in dollars per thousand dollars assessed property value

**Defined as reimburseable expenditures under Chapter 70: school costs minu transportation, capital outlay, food service, state and federal grants

A wealthy community such as Dover, taxing itself at a low rate, generates high levels of educational expenditures. A less wealthy community, taxing itself at a higher rate, raises low to moderate dollars for schools. Scituate, with a higher tax rate than Dover, raises about $500 less per pupil.

Scituate and Dover, as residential suburbs, are comparable in many respects. The financial dilemma of Boston's schools are more complex. Boston taxes itself at a relatively high rate for schools: $35.54. At the same time, there are heavy demands for public services such as police and fire protection. Boston's total tax rate ($163.23) reflects the heavy tax burden of supporting public services for a dense urban area. Table 2 points out the city-suburban differentials in school and total tax rates and the proportion of the municipal budget spent for education.

Table 2

SCHOOL AND NON-SCHOOL TAX RATES FOR SELECTED COMMUNITIES, 1973

Community	Equalized Total Tax Rate	Equalized School Tax Rate	Percent of municipal budget for schools
Boston	$163.26	$35.54	22%
Scituate	$61.02	$28.24	46%
Ashland	$58.40	$32.45	56%
Milton	$37.18	$16.61	45%
Dover	$39.14	$23.66	60%

Boston's educational expenditures make up only 22% of the city's budget while a typical suburban share is double or triple that amount.

A further problem compounds Boston's relatively disadvantaged position: heavy concentrations of children in need of higher cost programs. Boston has a higher proportion of children from low income families and children who are of limited English-speaking ability than do residential suburbs. National studies have shown that compensatory programs cost more than regular day education. The National Educational Finance Project estimates that compensatory programs are twice as costly as regular day programs.[3] Bilingual education is estimated to cost approximately 40% more than regular education in Massachusetts by the State Department of Education.[4]

Within metropolitan Boston, there are wide gaps in the ability to generate revenues from the property tax base: the wealthiest town (Brookline) has a tax base per child four times as large as the poorest town (Chelsea). Boston and her industrial suburbs such as Lynn, Chelsea, Malden, Revere, Everett and Cambridge have a high total public service budget and a low proportion of that budget devoted to education. School districts in the inner belt and Boston are faced with low fiscal ability and a higher proportion of students requiring special programs. The result for urban children is an educational program often lacking the special services they desperately need.

If heavy reliance on local tax resources result in inequity, does state aid compensate for these gaps? Unfortunately, the answer to this question is no.

School support: the state share

The state aids local governments for education in two basic forms: general aid (Chapter 70) and categorical aids (i.e. special education). General aid is distributed according to a formula with no requirements as to the type of educational program offered. Categorical aids are given to a local government to encourage a particular type of education, such as vocational programs. Each categorical aid program has a separate formula and separate requirements for approved programs.

The largest school aid program in Massachusetts is Chapter 70--it amounted to $303 million in 1973. Chapter 70 contains a percentage equalizing formula: the state shares a portion of school costs on a percentage basis. The percentage varies according to local ability to pay for education. Ability to pay for education is defined as local equalized property value per school attending child. Equalized valuations are determined by the State Department of Corporation and Taxation. They reflect the value of every city and town's property as if it were assessed at 100% full and fair cash value.

The Chapter 70 formula is:

$$\text{Aid} = 1.00 - .65\left(\frac{\text{equalized valuation/SAC local}}{\text{equalized valuation/SAC state}}\right) \text{ X Reimbursable expenditures}$$

"1.00 - .65" sets the state share at 35% for communities of average wealth and the state as a whole. The ratio of local to state equalized valuation per school attending child (called the valuation percentage) is a measure of fiscal ability. "School attending child" includes children in private as well as public schools. Reimbursable expenditures are all school costs except: transportation, school food services, capital outlay, federal and state grants, special education and vocational education.

Two important limitations are placed on the formula. The school aid percentage is determined by multiplying the valuation percentage by 35%. The school aid percentage may be no less than 15% and no more than 75%. Some 80 communities are affected by the minimum and only a very few by the maximum.

Reimbursable expenditures per net average membership may be no less than 80% of the state average and no more than 110% of the state average. If a community's reimbursable expenditures per NAM are less than 80% of the state average, then 80% of the state average reimbursable expenditures per NAM are used in calculating that community's school aid entitlement. Likewise, if a community exceeds 110% of the state average reimbursable expenditure, then 110% of the state average is used in the formula. A sample calculation illustrating the formula's operation is attached in Appendix A.

Although Chapter 70 is intended to be equalizing, several factors impede equalization. The 15% minimum placed on the school aid percentage restricts the formula from assigning low aid percentages (or no aid) to wealthy communities. Many of the suburbs to Boston benefit from the 15% minimum school aid percentage. In all, twenty-eight of the seventy-eight SMSA communities are at 15%. With the exception of Cambridge, Everett, Waltham and Watertown, these communities are residential suburbs of average to high family income. Cambridge, Everett, Waltham, and Watertown share a common feature: they have high property valuation per child but low to moderate family income.

Another factor inhibiting equalization is the proration of Chapter 70 entitlements. When entitlements exceed available revenues from the state, Chapter 70 is prorated equally to all cities and towns. Proration of an equalizing formula adversely affects poor communities more than wealthy ones.

Table 3

CHAPTER 70 PRORATED AT 80% (assuming equal expenditure of $1000 per pupil)

	School aid percentage	Chapter 70 entitlement	Chapter 70 at 80%	Loss per pupil
Town A	15%	$150/pupil	$120/pupil	$30
Town B	60%	$600/pupil	$480/pupil	$120

Town B loses four times as much per pupil as Town A when Chapter 70 is prorated annually.

Categorical aid

Massachusetts provides aid to cities and towns to encourage special types of education offerings. The major aid programs of this type are school construction, regional school aid, vocational education, special education and transportation.

Massachusetts supports a relatively large portion of school construction costs. Most communities receive 65% of the cost of principal and interest on school construction bonds for approved projects. All cities and towns in areas of substantial and persistent unemployment qualify for 65% aid. The remaining 50 to 60 communities receive between 50 and 65% aid depending on their relative equalized property valuation per pupil.

The state provides incentive aid to cities and towns forming regional school districts. Member communities receive 15% of their Chapter 70 distribution.

For vocational education, the state provides 50% reimbursement for the operating costs of approved programs. For special education, the state supports 100% of the excess cost of providing programs for children with special needs. The local community assumes that portion of cost for educating a child with special needs that corresponds to the regular day per pupil cost. The state assumes the full excess cost up to 110% of the state average cost of each program prototype.

Various reimbursements are available to cities, towns and regional school districts for transporting pupils. In general, no reimbursement is provided for transporting pupils who reside less than 1 and 1/2 miles from their school. Table 4 summarizes the state aid available in the categorical aid programs.

Table 4

MAJOR CATEGORICAL AID PROGRAMS FOR FISCAL YEAR 1975

Program	Amount (in millions)
School construction	$85
Regional school aid	$24
Vocational education	$37
Special education	$80 (estimate)
Transportation	$34.8

Source: Massachusetts State Budget for Fiscal Year 1975.

It is readily apparent from the above descriptions that categorical aids in Massachusetts are diverse and unrelated to a common fiscal policy. Both Chapter 70 and the categorical aids are based to some degree on reimbursable expenditures. Cities and towns are required to first spend local money to receive state reimbursement. Proration undermines this system as local governments lose faith in the state's willingness or ability to honor its financial commitments. A city which experiences high demand for all public services and depends heavily on property tax revenues will be reluctant to levy new taxes in anticipation of possible state reimbursement. The reimbursement process itself, therefore, is an impediment to poorer urban districts to finance urgently needed special programs.

When educational expenditures from state and local sources are compared, low income communities receive more Chapter 70 aid per pupil but less categorical aid than do wealthier communities. Table 5 presents summary data from the entire state.

Table 5

SOURCE OF EDUCATIONAL EXPENDITURES BY INCOME OF COMMUNITY: 1971/72

Average per capita income of city or town	Chapter 70 aid per pupil (1)	Categorical aid per pupil (2)	Total state (3)	Local (4)	Total (5)
$2001-2500	$245	$76	$321	$598	$919
$2501-3000	$209	$81	$290	$685	$975
$3001-3500	$217	$81	$298	$810	$1108
$3501-4000	$151	$82	$233	$942	$1175
$4001-4500	$171	$92	$263	$941	$1204
$4501-5000	$128	$75	$203	$1133	$1336
$5001-5500	$94	$101	$195	$1282	$1477
$5501-6000	$94	$162	$256	$1324	$1580
$6001 plus	$102	$100	$202	$1417	$1619

Source: Massachusetts Department of Education, End of Year Report, 1971/72

In the higher income communities the effects of the 15% minimum school aid percentage is evident. Even the wealthiest communities receive some Chapter 70 aid. The net impact of state aid is virtually a flat grant. The wide differences in resources per child are not eliminated by the state aid system.

Trends in school finance

There is a growing dissatisfaction with the school aid system on the part of state and local officials directly affected by its inadequacies. The landmark special education law, Chapter 766, dramatized the weaknesses of the current finance structure for public education. The goal of Chapter 766 is to serve every child with special needs with a unique educational plan drawn up to suit his or her needs. Chapter 766 is financed entirely through state reimbursement of the excess cost incurred by a city or town. As implementation approached, the fears of local officials surfaced regarding the state reimbursement of local costs for a state policy mandate. The state legislature had required that all special needs children would be served and promised full reimbursement. Municipal officials feared that the state would not meet its financial commitment and that start-up costs would be borne by the already high property tax. A compromise was reached by the 1974 legislature: $26,000,000 of special education advance payment was given to local governments. The state had abandoned the tradition of local expenditure preceeding state reimbursement so that the important goals of Chapter 766 could be met in the initial year of implementation. The lesson learned in the 766 experience was that the local property tax is too over-burdened to support the expansion of much-needed educational services at the local level. State aid is needed to support such services in advance of local expenditure.

Another sign of dissatisfaction with reliance on local property taxes for schools is the annual debate over fiscal autonomy of school committees. Frustration with mounting property tax burdens on the part of citizens and elected officials results in calls for municipal control over school budgets. Many opponents of fiscal autonomy complain of state mandates which must be locally financed. Leading education groups fear that municipal control over school budgets in a time of rising local tax burdens will be detrimental to education. The Massachusetts Teachers Association consistently opposes removal of fiscal autonomy while urging greater state aid to relieve the local tax burden.

A related pressure comes from the problems of assessment of property at fair cash value. By statute, all communities are required to assess at 100% value. The state monitors assessment through sales studies. Every two years the State Tax Commission sets equalized valuations on the basis of its sales studies. These equalized valuations are used in many state aid formulas, including Chapter 70. Over estimates of a city or town's wealth could cost the community large amounts of state aid. Increasing attention in recent years has been paid to improving both local assessment and state monitoring of assessment by the executive and legislative branches of state government. Fair, accurate assessments are crucial to the orderly administration of the property tax as well as to state aid programs designed to relieve the local tax burden.

A case is currently pending before the Massachusetts Supreme Judicial Court (Sudbury vs. Tax Commissioners) involving full valuation for all towns. Communities required by court order to revalue (Lynn and Worcester, for example) fear the loss of state aid if many cities and towns are allowed to assess at less than 100% and the state equalized valuation process fails to accurately gauge the disparity. If the Sudbury plaintiffs are successful, all cities and towns may be forced to revalue.

Such massive revaluation may have unanticipated consequences. It is a common misconception that homeowners are assessed more heavily than businesses. There is evidence that the opposite is true.[8] Revaluation in San Francisco resulted in higher assessments and higher tax bills for homeowners in San Francisco, as Diane Paul has documented.[9]

If revaluation of all cities and towns is ordered by the Supreme Judicial Court, increased state aid to local governments would ease the shock to homeowners. Increased state aid will be especially important to homeowners and renters in the city of Boston where the full brunt of the high tax rate has been softened by differential assessment rates. Oldman found that single family dwellings were assessed at 44.2% of value and commercial property at 77.8% of value.[10]

The forces active in issues such as Chapter 766, fiscal autonomy and assessment reform are likely to continue to be the key actors in school finance reform. In the Chapter 766 controversy, leadership came primarily from key legislators: House Speaker David Bartley, Representative Michael Daley (Chairman, House Education Committee) and Representative Joseph Early (Vice Chairman, House Ways and Means). The 1974 legislature passed a bill changing several state aid formulas, two of which pertained to education (see footnotes 6 and 7). The legislators who designed the bill and worked for its passage were Senator Frederic Schlosstein and Representative John Buckley (Senate and House Chairmen of the Joint Committee on Taxation, respectively). These legislators, along with Senator James Kelley (Chairman, Senate Ways and Means Committee) will be potent forces in the debate over school finance. The concerns of these legislators span over not only education policy, but the state's overall economic competitive position and control over the state budget.

Municipal officials have been increasingly vocal and effective in acquiring state money for state mandates. The League of Cities and Towns served as the focal point for their efforts. The $26,000,000 advance money for Chapter 766 was largely the result of their consistent policy position.

Civic groups have an important role in state fiscal policy. The most active groups are the Massachusetts Taxpayers Foundation and the League of Women Voters.

Educators have advocated increased state funding for schools through their Massachusetts Educational Conference Board. The Massachusetts Teachers Association has filed legislation calling for 90% state funding of education. State education Commissioner, Gregory Anrig has advocated a larger state share of education costs with decreased disparities in educational expenditures. The Board of Education will submit a major reform proposal to the 1975 legislature.

The obstacles facing successful legislative reform of school finance are primarily related to revenue-raising. In order to relieve the property tax by a significant amount (it now raises over 50% of all state and local revenues) a major tax change is required. Massachusetts has a constitutional prohibition against a graduated income tax. Voters have twice rejected the opportunity to remove this prohibition. The Master Tax Commission has recommended a state administered property tax to support 90% of the costs of local government, including education.[11] Adjustments in other taxes are also required to reduce the reliance on the local property tax from 51 to 40% of all state and local tax collections.

Other than a graduated income tax or a statewide property tax, likely alternatives are increases in several existing taxes such as income, sales, and corporate excise taxes.

The 1975 legislative session will probably witness discussions of alternative tax approaches. The state needs more revenue to meet existing commitments. Estimates of the deficit vary, but some have been as high as $200 million.

Advocates of school finance reform hope that the pressure evident in 1974 in the financing of Chapter 766, along with the likelihood of a favorable ruling in the Sudbury case, will culminate in legislative action in the 1975 legislature.

Summary

The Massachusetts system of school finance has a direct effect on the educational resources available in every metropolitan Boston community. The low state share, structured in a manner dependent on local expenditure, results in a pattern of unequal educational opportunity between city and suburb and between industrial and residential suburbs. 1974 witnessed a great deal of dissatisfaction with the existing over-reliance on local property taxes. The primary constraint against solving the property tax dilemma is the lack of a productive taxing alternative. Educators and municipal officials hope that the weaknesses of the state aid system evident in 1974 will lead to solutions in 1975.

FOOTNOTES

1. There are exceptions in which earmarking of state aid for specific purposes occurs. Special education aid, for example, must be spent by the city or town for special education.

2. *NEA Ranking of the States*, 1973.

3. *NEFP Decision Process: A Computer Simulation*, National Educational Finance Project, (University of Florida, Gainesville, Florida), 1971, p. 48.

4. Massachusetts Department of Education, Bureau of Transitional Bilingual Education estimates the average excess cost of bilingual education to be 40%, based on reimbursements for bilingual programs.

5. For a complete description of state aid to education, see "State Aid To Education in Massachusetts," Massachusetts Department of Education, 1973.

6. Chapter 492 of the Acts of 1974 changed the formula for school construction. A city or town's school construction aid will be based on: $50\% \times \left(\frac{\text{equalized valuation per child, state}}{\text{equalized valuation per child, local}}\right)$.

   A minimum of 50% and a maximum of 65% are set in the law. This is an equalizing formula with a relatively narrow range (15 percentage points) of equalization. It takes effect in July 1975.

7. Under Chapter 492 of the Acts of 1974, regional aid will be based on the degree of regionalization (whether partial or full K-12), ability to pay for education, and the operating budget of the regional school.

8. Oliver Oldman, "Assessment-Sales Ratios under the Boston Property Tax," *National Tax Journal*, v. 18, no. 1, March 1965.

9. Diane Paul, "Politics of the Property Tax," Massachusetts Public Finance Project, report number 25, April 1974, pp. 15-16.

10. Oldman, *op. cit.*, p. 40.

11. First Interim Report of the Special Commission to Develop a Master Tax Plan, Senate no. 1298, February 1971.

APPENDIX A

Sample Computation of Chapter 70 Entitlement: Arlington

1. $\frac{\text{Average equalized valuation per school attending child, local}}{\text{Average equalized valuation per school attending child, state}} =$

   valuation percentage

   $\frac{\$33,535}{\$25,324} = 132.4\%$

2. Valuation percentage X 65%, subtract result from 100% =

   school aid percentage

   (132.4% X 65%) subtracted from 100% = 14%

   Less than 15% minimum, therefore 15% minimum applies

3. Reimbursable expenditures multiplied by school aid percentage =

   school aid entitlement

   15% X $8,706,512 = $1,307,976

PUPIL TRANSPORTATION AND THE ELIMINATION OF RACIAL ISOLATION IN EDUCATION IN METROPOLITAN BOSTON

Prepared for
The Boston Metropolitan Planning Project

Robert Hayden

It is unfortunate that racial/ethnic group isolation in education has been defined by the condition of non-whites. In Massachusetts only predominately or all-black student population in a given school is called imbalanced. An all-white school, however, is not termed imbalanced. Although it is true that black pupils and parents suffer more severely from segregated schools, whites also suffer in the final analysis from isolation from reality.

Using only one racial group to define the condition restricts the range of remedies that can be used to eliminate racial isolation in education. In the next section of this paper, some Metropolitan-Boston educational programs will be described briefly to show that imbalance defined in terms of non-white student population only has influenced the use of transportation as a means to eliminating isolation. The entire burden of using transportation has fallen on the backs of black pupils and parents. This has been grossly unfair.

Racial isolation is educationally and emotionally harmful to all children, white and non-white. Separation from others leads to and perpetuates ignorance of others. Ignorance breeds fear and prejudice. Fear and prejudice cripple the social creativity and productivity of white children as well as Blacks. In Massachusetts white school-aged children and youth rarely have an opportunity to meet black children as individuals. Their thinking about Blacks is highly stereotypic. Black school aged children likewise grow up in ignorance of white persons as individuals. Similarly, they develop stereotyped views of whites. The deep lines of separation engendered by a background of slavery and racial segregation in all aspects of American life has produced a chain reaction of suspicion and hate. This limits the intellectual and emotional development of these children and as such lowers the quality of education for both blacks and whites.

What is this "thing" we call quality education? It is more than achievement scores on standardized tests. A quality education should also prepare students for living now and and as adults in an ethnically pluralistic country and world. Clearly, the mixing of black and white children in a school does not guarantee a quality education for either racial group. In integrated schools, whatever the academic value of blacks learning with whites and vice versa, the two groups are forced to cope with problems of racial hostility and ignorance. To the extent that education lacks racial conflict it is insufficient preparation for living in America as it is and as it is likely to be for a long time.

The notion of a quality education must be reconceptualized if racial isolation is to be eliminated. And this reconceptualization will have to include the values, goals and some genuine decision-making input from black people. White educators, parents and students in suburban communities are not experiencing a quality education for the future if the school populations are predominately white.

Perhaps, ironically, one of the strong factors that has contributed to segregated schooling must now be used to undo the harmful effects of segregated schools and to help reconceptualize what education really is and can become. That factor is the transportation technology used to move people.

Indeed, discrimination against blacks in housing, land acquisition, and in the job market has trapped blacks in the urban centers. But transportation has also allowed suburbia to grow. The automobile, rapid transit, and a constantly expanding highway/turnpike system has allowed whites with money to move to suburbia leaving blacks, other non-whites, and poor whites generally to inhabit the big cities of America. Transportation has contributed in a significant way to a segregated Metropolitan Boston. And now we must look to transportation to bring school aged black and white children together for their own welfare and the health of the society as a whole.

Methods for improving the school as a social agency move in cycles. At first school consolidation and pupil transportation were confined to cities where they brought about the first modern school systems. Then the focus shifted to the countryside, where much of the rural population was concentrated. There, school consolidation and pupil transportation transformed the lives of country children. By the 1920's and 30's attention shifted back toward the cities and urban transportation and school consolitation grew apace. Because a growing proportion of the black school population was located in the cities, they gained the benefits school transport in large numbers for the first time.

Today perhaps requires another cycle. New concentrations of suburban people are growing up in areas of our country that once were rural. For the benefit of their children, one more extension of school reform can be brought about through pupil transportation

While in earlier years transportation was used for school consolidation the purpose of consolidation is the same as that of using transportation to eliminate racial isolation. In school, pupils had more of an opportunity to come in contac with a larger group of children from different kinds of homes and backgrounds tha did children in the small school. The contact with many children was supposed to widen their visions and give a breadth of view impossible in the small district. Likewise, pupil transport to bring racially different pupils together can achieve some of the same purposes as school consolidation plus more.

Originally, pupil transportation was designed merely as a convenience to children living beyond a reasonable walking distance to the local school. School transportation also met the need for school consolidation mentioned earlier. To some people a school transportation budget for other reasons is seen as something that will detract from the "real instructional program" and the quality of education.

It is proposed here that pupil transportation can move us toward the quest for more equal educational opportunities, especially for minorities, and at the same time toward an improved instructional program. The transportation of school children at public expense can no longer be considered simply as an activity supplementary to the main education program. It must be a large element in that program.

Let's consider several general ways in which the instructional program can benefit. For thousands of boys and girls who ride a school bus there is an experience of learning how to live with others. Functional learning comes face to face with real live problems of concern to pupils. Informal learning situations emerge on a bus that reflect the feelings, the desires, the aspirations, the problems, the successes and failures of pupils. While the A.M. rides carry the joys, the enthusiasm and sorrows of the home, the P.M. ride from school to home brings together the reactions of the school activities of the day. Day after day these experiences shared between pupils build a unity and provide understanding about human behavior that is often a "springboard" toward learning to live well with self and others. There is no better defined continuity of home and school life than may be observed on a school bus as pupils leave home to ride to school or a learning site and as these same pupils leave school to return home.

The school bus is a laboratory for learning ways of democratic living where principles of good manners, responsibility, kindness, health and safety can become the objectives by which each pupil is appraised by all others in the bus groups. The development of sound values becomes necessary for each pupil;not only is he/she faced with being accepted, but he/she also exercises the process of accepting others. The elementary social theories operating in the minds of pupils give direction to activities and general behavior on the bus. Due to the limited space on the bus a rather rigid code of conduct grows. Those who violate the code of conduct find their mistakes socially expensive. At the same time those who enjoy success in achieving the goals of conduct feel a sound satisfaction.

With the guidance of a bus driver who understands the nature of different ages, a functional setting for social learning develops. When one recognizes that social acceptance is a salient principle of learning, it is easy to understand why pupils who ride a bus are at no disadvantage with those who spend less time in travel to and from school. For the great majority of pupils, the experiences attendant to bus transportation are rich in many social values. There is no better example of the fact that pupils teach other than is found on a school bus as it rolls along the highway to and from school. When school opens and the busload of pupils is in the process of organization, pupil choices and attractions for each other are largely on the basis of feelings of affinity. Repulsions of pupils by others are on the basis of the lack of a feeling of affinity. In the early stages of the formation of social webs, affirmative feelings of affinity and negative feelings of repulsion are evident. Bus drivers are coming more and more to recognize the importance of the first few days and consequently seek out effective pupil leaders around whom group unities may be built. When the social web is thus used to promote the general welfare of the total group, there soon develops feelings of acceptance on the basis of abilities of individuals. Acceptance of an individual pupil on the basis of ability, when affinity at first did not suggest acceptance, is evidence of growth of a group in the area of tolerance. Cohesion of the group depends on unities of feelings between and among the group members on the bus.

Developing self-discipline is another benefit. Riding a bus to and from school demands exactness in the lives of pupils. The bus time schedule is so set that little or no waste of time is necessary at loading stations; neither do careless habits receive group approval. Pupils learn that the bus leaves at a definite time and all who ride must abide by the schedule. In this way the bus schedule affects such home routines as the time of rising, the schedule of morning activities and preparation for the entire day. Regularity and promptness become a part of pupil living. The proper clothing to wear, the school equipment, the homework for classes and all aspects of the total day become matters that require the best judgment and planning by pupils. Freedom for improved educational experiences when the moving classroom comes to the pupils' doors imposes a responsibility of exactness, regularity and promptness that parents appreciate. As one parent said, "My two children seem to be different members of the family when school opens. They rise at a regular hour and assume responsibilities for getting ready for school in an adult manner. There seems to be an agreement among the children that a good student is always on time but never waits more than five minutes at the pickup location."

The necessity of living with others on the school bus day after day activates the feeling of personal responsibility for acceptable behavior standards. Just as pupils learn what they like and accept, they find life on the school bus an exacting social experience. During the course of the year pupils find varying degrees of satisfaction and dissatisfaction. Individual and group evaluation of each pupil is an ongoing and healthy activity for children and teenagers.

During a three-year period, the author served as the Executive Director of an inter district transfer program. All of the transported pupils were black and left the core city of Boston each day to attend suburban schools. All of the benefits described above accrued to these pupils also accrued the same social and personal benefits from group interaction. An amazing amount of learning takes place on the school bus--whether planned or unplanned. How much richer this experience/learning could be if black and white pupils could share the bus ride. Perhaps the isolation/polarization that occurs between whites and blacks at the school site might be diminished some if students of different races and classes could travel together to learning sites. And most important, having pupils of every racial/ethnic group learning together can only happen via the use of various modes and amounts of transportation.

When used judiciously, inter-district transportation and transportation to neutral sites of school-aged children can be an important instrument for educational and social reconstruction.

The Current Situation in the Boston SMSA

At the outset of this paper it was proposed that for the Boston metropolitan area, the definition of a racially imbalanced school in Massachusetts has determined the use of transportation to eliminate racial/ethnic isolation among school age children. A racially imbalanced school was defined as a school with a student population of 50% or more non-white. This quantitative determination has been embedded in a piece of legislation known as the Racial Imbalance Law (RILaw) passed by the General Court of Massachusetts in 1965.

The RILaw mandated that any school district with a school or schools with a non-white percent greater than 50 must implement a plan to reduce the non-white group to 50% or less. The core city of Boston had approximately 45 imbalanced schools in 1965 and it was automatically expected that non-white students would have to be moved to relieve imbalance.

The RILaw was clearly intended to eliminate racial isolation in the Boston Public Schools. And, pupil transportation as a tool for reducing, preventing, and abolishing all isolation was available and legal. But clearly, generally all-white schools in Boston and the suburbs were not targets of the RILaw. What has occured between September 1965 and August 1974 as a result of this Law?

(1) As of June 1974 the Boston Public Schools had not undertaken any kind of plan to relieve imbalance in its schools.

(2) Starting in 1965 a group of black parents with privately raised money hired buses to transport daily, black children to all-white schools within the City of Boston. This voluntary program has continued since 1965 and during the 1973-74 school year approximately 300 black children participated in this intradistrict transportation plan.

(3) In September 1966, under an option available in the RILaw, 220 black youngsters began riding buses to suburban schools each day. This intradistrict transfer program has also continued and during the 1973-4 school year approximately 1,800 black pupils from Boston rode buses daily to classrooms in 30 different suburban Boston communities. For a limited time, 1966-1972, several hundred black pupils from Boston attended all white schools of the Catholic school system outside of Boston. This transportation was privately financed and became extinct in 1972 due to the difficulties of raising transportation funds.

Historically then, we have the following summation. Since 1965 only non-white students have been transported to relieve imbalance and to provide a more equal educational opportunity. These non-white pupils have moved to generally all-white schools; white pupils have not moved. Both the interdistrict and intradistrict transfer programs referred to above are financed with monies appropriated by the Commonwealth of Massachusetts. (It should be noted that the interdistrict program used private and federal dollars only until 1970 and the intradistrict program used private dollars until 1970). Finally, both programs still in existence have been voluntary --i.e., the parent and child have made the decision to use non-routine transportation to gain a better or more equal learning opportunity. Both programs, although publicly financed now, are privately governed and generally contract with private bus carriers for the transportation services. Virtually all of the 90 plus vehicles used in the interdistrict program are suburban based.

The Racial Imbalance Law was never implemented in Boston. Amending legislation passed in 1966 it made the interdistrict program possible. Lack of implementation by the Boston School Committee over the years cleared the way for the recent federal court order for Boston desegration in September 1974. With the passage and signing by the Governor of substitute legislation in July 1974, the RILaw was in effect repealed.

The substitute legislation, in the main, is supposed to provide money incentive to suburban districts and white schools within Boston for enrolling non-whites who volunteer to move from an imbalanced school situation. The merits and demerits of this plan will not be debated here. But again, it places the burden on non-white families and devalues the need and existence of schools in non-white neighborhoods.

Since 1965, the number of pupils that transportation has impacted upon in Greater Boston in terms of more racially/ethnically mixed student populations has been small. During this nine year period probably no more than 4,000 non-white Boston youngsters have been affected. The greater majority have participated in the interdistrict program mentioned above. During the 1973-74 school year the interdistrict program had approximately 1,800 pupils. Meanwhile there were 38,800 non-white public school children in Boston during 1973-74. With 30 suburban districts enrolling the 1,800 or so, the average number of non-white transfer per district is only 60. And, these 30 suburban districts have an average of approximately 5,400 white pupils. Clearly in a typical suburban district 60 non-whites together with 5,400 whites is hardly "integration" (since the two groups, black and white are so unequal numericall and intergroup/ethnic contact for the black and white pupils is minimal if it exists at all.

Despite the fact that the interdistrict program has climbed to only a 1,800 enrollment in a 9 year period, it has become a significant, established and hi ly beneficial to the greater majority of non-whites who are participating. Th strengths of the program are many and valuable in tangible and intangible ways As stated earlier, even though a federal court judge ruled in June 1974 that Boston must begin a desegregation program in September 1974 within the limits of the city, the alternative of transportation between city and suburbs must continue to be available for those who wish it. However, when the movement is one-way from the non-white to white communities there are weaknesses that need to be more fully recognized. They are as follows:

(1) Non-whites become isolated from their home community because of total hours spent at the suburban school and traveling to and from it. If one values the need for every person--regardless of age--to have a sense of belonging to some community, then this weakness must be dealt with.

(2) Suburban students and parents come to devalue the city as a place to be, to learn, to study, to enjoy when they observe that non-whites leave daily for schools in suburbia. The city is perpetuated as a "bad place".

(3) The option of greater use of the total out-of-school environment which includes the city and its resources for learning by blacks and whites is lessened.

(4) The majority of bus drivers who drive non-whites from Boston to suburbia and back each day do not have the appropriate knowledge and attitudes to handle interpersonal matters with black students and parents. Practically all the drivers are white, and racist behavior affects the bus ride as well as the bus-time schedule in ways that can be detrimental to the educational and social program of the transported pupils.

(5) Policemen in suburban communities prejudge and discriminate against non-white students, high school students from the city who may be in the suburban community during non-school hours for very legitimate reasons.

(6) Rigid scheduling and the lack of flexible transportation services back to the city during the late afternoon and early evening makes it impossible for grade 7 - 12 pupils to be involved in sports and other extra-curricular activities.

Individually and in some instances taken together the facts cited above suggest some modifications in school attendance laws, new educational program planning, and in-service training if racial isolation in Metro-Boston is to be reduced and eliminated by using transportation as an instrument. In the next and final section of this paper the notion that educational programs outside of urban and suburban school buildings must be designed on a massive scale before pupils of different racial/ethnic backgrounds can be brought together will be discussed. The use of public and private transportation vehicles and the roads and highways available to bring racially/ethnically different pupils together in relatively short periods of time can and should only be used if non-traditional places for learning are used by teachers.

THOUGHTS AND IDEAS FOR THE FUTURE

There are distinct limits to the willingness of suburban communities to enroll urban, non-white students--even with the declining school enrollment in many suburban school districts. During the past four years only 3 new districts have chosen to participate in the interdistrict program referred to earlier. Excessive traveling times to a number of districts makes it educationally and financially unsound to think of transporting students on a daily basis. But even if interdistrict transfers from city to suburb could be increased to a sizeable number--this is not the only way to relieve racial isolation and it is not the best answer for all non-white city youngsters.

The designing of educational experiences that would involve non-white from the core city schools with pupils from suburban schools at non-traditional learning sites which would be neutral turf for all pupils is the direction we should be moving in. Spanish-speaking, Chinese, and other non-white minority group students should also be included in such planning. It is unfortunate that students from these racial/ethnic groups have been largely side-stepped and ignored to date in the programs for multi-ethnic education.

Greater use of public transportation by junior and senior high pupils must be allowed during school hours for travel to the so-called non-school neutral sites.

For urban students the use of public transportation is a natural thing. An elaborate transportation network is one of the positive attributes of the city. Public transportation is one of the things that makes cities work--it is part of the process of the city, a characteristic or quality of city life. It can and must be used more creatively in education.

Utilization of the vast Metropolitan Bay Transit Authority (MBTA) within the city to move students around during the day to out-of-school sources of learnint is feasible. City children and youth use and expect to use the MBTA buses and subways. John Bremer who pioneered the famous Parkway Program (high school without walls) in Philadelphia captured the real capability of physical mobilit in the city by his insistence from the very beginning that there would be no shuttle buses connecting the various non-school institutions and places where students would gather--students would have to find their own way of getting fro one place to another no matter what the distance. Futhermore, real day-to-day experience with public transportation systems is more valuable than reading about transportation technology and problems from a textbook.

Effective use of public transportation for Boston high-school aged students to suburban schools on a daily basis has been proven. Each year since 1966, approximately 70 students (grades 9-12) in the interdistrict transfer program have used the MBTA to travel daily from Boston to Brookline High School. A most severe and perhaps the only problem faced with this personnel arrangement has been the hostilities between some of the MBTA police officers, drivers and the students.

The MBTA reaches far out beyond the city limits of Boston. One only needs to scan the table of suburban communities served by the MBTA, found in the Append to this paper, to gain a sense of the large number of suburban high school students who could be joining urban students at neutral learning sites by utilizing the rapid transit. High School students living in any part of the metropolitan Boston can reach the Museum of Science, the Museum of Afro-American History,and the State House by using public transportation and leaving directly from their homes rather than on expensive chartered buses that move students from school to museum and back to school.

Admittedly, school hours and the number of days in school attendance per week would have to be more flexible if new learning environs are going to be used to bring racially/ethnically different students together.

The private automobile should not be overlooked as a means of transporting suburban students to learning sites/centers in the city. I once addressed a social studies class in a high school west of Boston. The topic under discussion was metropolitanism. There were 21 students in the class. I learned that 19 of the 21 fathers represented commuted to work daily by automobile into the city of Boston. It seems to me based on this one sample that suburban students could easily be transported by parents to Boston or points along the way to join up with urban students for learning together at neutral sites.

Looking at K-8 students for a moment, it has been established that if children experience interracial living at a young age there is less likelihood that stereotypic behavior will develop. And there is also a greater chance that as young children with interracial exposure grow into the teen-age and adult years that interracial/ethnic experiences will be less stressful. Theoretically, at least, black-white student polarization should be lessened if black and white children are at least learning from each other.

Elementary school children, white and black, need to be at learning sites together--but chartered buses must be employed to move children from the home school. Public transportation cannot be used in the same way as suggested for grades 9-12 students. However, if an all black fourth grade class from a city school were to join a fourth class from a suburban school twice a week or more at a site for nature study, only one bus should be used. It should be possible to pair schools/classrooms so that the same bus stops at both schools rather than having a bus leaving each school for the same neutral, non-school site.

The key to the effectiveness of non-school learning sites and the related curriculum is, of course, the classroom teacher, whether we're talking about K-8 or 9-12 grade students. Staff development and preparation of teachers for the use of transportation cannot be dealt with here, since transportation and its related components is the focus.

There is, however, another group of people that must not be overlooked if transportation is to be used on a large scale as an integral part of the means to relieve racial isolation by bringing students together. That group is the bus drivers. Metropolitan educational programs will require that special attention be given to the selection and training of the driver for what is being talked about here.

Just as psychological personality and background characteristics are important to safe bus driving--these characteristics are also important to good human relations between black students and drivers (particularly if they are white) and for handling black and white students together on a bus. It has been my experience that bus drivers with unhealthy attitudes toward black people and black and whites sharing, in this case educational opportunities, can by their behavior affect an educational program in a negative way.

The kinds of new programs envisioned by educational thinkers who want to use non-school resources for learning activities will require irregular and flexible transportation schedules and routes. Workshops or briefing sessions should be held to give bus drivers basic knowledge about new transportation schedules and routes. Workshops or briefing sessions should be held to give bus drivers basic knowledge about new transportation education related activities. Bus drivers need to know the special problems faced by black and white students, their parents, school personnel in operating programs to relieve racial isolation. Likewise, transportation administrators, parents, teachers, etc. need to hear the problems and concerns of bus drivers, who will be driving across district lines and into neighborhoods that might seem alien.

Several years ago I conducted a 2-hour workshop with bus drivers in the interdistrict transfer program referred to earlier. The drivers volunteered to participate, they were paid a modest stipend for their time and the results were greatly improved relations and understandings about their special responsibilities in this program.

Although careful attention is given to the psychological, personality, and background characteristics of all bus drivers--special attention must be given to those who will be transporting black children and youth. This is necessary if we are honest and recognize that racism is part of our American culture and that it can certainly be mainifested by bus drivers. Likewise, black students, especially older ones, will have racist behavior that is directed at bus drivers with which they (the drivers) will have to deal with. Age, sex, experience and education are extremely important. Attitudes about non-whites and "busing" held by drivers must be studied very carefully by those responsible for the transportation services. Attempts must be made to identify clearly the work-related attitudes of drivers via interviews with prospective drivers, conversations with previous employees and direct observation. In sum, the selection and orientation training of bus drivers for transportation programs that will aid in eliminating racial isolation among school-aged children needs special attention and planning. Transportation budgets should reflect periodic individual and group sessions with drivers.

Transportation, per se, should really not be a problem or an obstacle in contributing toward the elimination of racial group isolation in metro-Boston. The transportation facilities are available--both public and private. The public transportation network might perhaps be more acceptable from a psycho-political perspective than the image of the school bus which is seen by some persons as the "yellow plague" destroying the neighborhood school.

Extensive public transportation data for metro-Boston is available from the Metropolitan Planning Project. Rapid transit routes, schedules, rail line services, travel times (maximum and minimum) are available to teachers, principals and curriculum planners.

Before public transportation can be put to fuller use teachers and parents must be given help in conceptualizing and designing viable learning alternatives at out-of-school sites. Educational legislation must be passed and monies must be appropriated by the General Court for this kind of curriculum development assistance to cities and towns. School board members must be re-educated toward the potential of learning sites outside the boundaries of their respective municipalities. For in the final analysis, it will be school board members who vote for or against or remain neutral toward interdistrict program and budgets for eliminating racial isolation in schools.

Should suburban schools be drawn into the solution of achieving racial balance in big cities? The U.S. Supreme Court answered no to this question on July 25, 1974 when it voted 5-4 vote against a plan that would have transported students across district lines in the metro-Detroit area. This decision will have had a long lasting impact on the social fabric of American education.

At the local level here in Massachusetts, action by the Governor which was supported by the State legislature in July will have a harmful effect on non-white youngsters and their parents residing in Boston. Legislative amendments passed by the General Court have effectively removed the mandate of the 1965 RILaw which called for an end to racial isolation in the Boston Public Schools. Although a Federal Court order for desegregation will eliminate some racial isolation in Boston beginning in September--the intra-city transportation eliminates the possibility of having the generally all-white Boston suburbs relieve its isolation. To date, its isolation has been lessened slightly only by the black students who have volunteered to attend suburban schools. These opportunities for individuals to move will be lessened as state interdistrict transportation monies may well be siphoned off to meet the costs of intra-city transportation mandated by the Federal court order.

The suburbs will remain hopelessly isolated--unless they take the initiative to create new forms of education in the metropolitan area.

Black students and parents in Boston have already taken the lead(since 1966 via the inter-district transfer program) toward voluntary elimination of racial isolation. The risks have been high for those who traveled each day from city to suburb. The city is rich with non-school educational opportunities. The city child has much available to him/her--museums, hospitals business and technical-vocational resources, historical sites, federal and state governmental agencies, old ethnic neighborhoods, etc. But the city student is "robbed" of these opportunities if he/she rides a bus to suburbia 180 days a year. The suburbs are not anywhere as rich in non-school resorces as the city of Boston. The suburban youngster in Scituate, Wayland and other outlying areas is deprived of the full reality that the city offers. It is the suburban student who equally needs the limits of "neighborhood" extended to include a larger community of people and places. We shall never have genuine "integration" in education unless equal numbers of white and non-white students both move away from home base and toward each other.

Transportation facilities should not be thought of in terms of the direct means to relieve racial isolation in education. Rather, it is the conceptualization and utililization of new learning programs at non-school sites which will have the potential to attract students from different racial groups. The emphasis should be on designing curricula in all disciplines that use the reality of life in the metropolitan area. Transportation, per se, is necessary only to bring the students together at the learning sites.

TRANSPORTATION IN THE GREATER BOSTON AREA

Prepared for

The Metropolitan Planning Project

James P. Brennan

I Introduction

A paper on transportation prepared for educators usually calls to mind the issue of school busing and its ensuing array of concomitant fears and emotions, however, school busing is not the topic of this paper. This paper, rather, represents a twofold effort. First, to provide some insight into present and probable future transportation operations, policy, and planning in the Boston area. Secondly, to relate the implications of these operations, policies, and plans to education in general and the mandated goals of the Metropolitan Planning Project in particular.

The relationship between education and land use is an obvious one. Schools are financed in Massachusetts primarily through real estate taxes; hence, wealthier communities tend to have more funds available to provide educational resources. At the same time, land use laws tend to effect a *de facto* balkanization of the population according to economic, social, and demographic characteristics. The combined effect of these two factors has been to provide the wealthy with the most resources to educate their children, and to group the economically and culturally disadvantaged in areas where available educational resources are minimal due to a poor tax base.

The role of transportation in this scenario can be understood best in light of the fundamental (but still not widely understood) relationship between land use and transportation. In some cases, the correlation between the two is quite simplistic. Several basic illustrative cases occured during the development of suburban areas of cities such as Boston, Philadelphia, and Chicago, where railroads with massive suburban landholdings established commuter operations to these areas to make their landholdings appreciate in value and to encourage their development. Property near these railroads did appreciate quickly, and the railroads reaped tremendous profits from the sale of the land. Such patently simplistic examples as these, however, rarely occur today; a host of other contributing factors make simple generalizations about the cause and effect relationship between land use and transportation (or vice-versa) quite difficult. This relationship itself is not of particular importance here; what is important is to understand how the trading off of land use and transportation affects other aspects of life.

This paper will attempt to provide insight into how alternative land use and transportation configurations affect life styles. In the next section, the transportation system as it exists today will be examined; the changes effected by its evolution will be discussed. In Section III, proposed transportation improvements and their implications for the future will be discussed.

II Existing Conditions

A: Evolution: Highway versus Transit

In the years following World War II, a variety of societal trends acted together to make the automobile the focal point of urban transportation. Resources were freed from wartime rationing, a population explosion was in progress, the housing market was expanding to the suburbs in response to the demands of many new families and the easy availability of government subsidized mortgages, and the automobil industry marketed its flashy new products in response to a booming economy. The automobile came to be a symbol of prosperity and prestige--a symbol that represented much more than mere transportation. At the same time, if the automobile was becoming society's Cinderella, public transportation was becoming a poor stepsister. Once profitable private transit operations fell on hard times. Ridership was lost to the automobile, so revenues declined. Increased street traffic and decreased ridership resulted in a deterioration of service. Sufficient capital was not available to purchase new equipment. More and more operators fell into bankruptcy and were either subsidized or taken over by public authorities. Meanwhile, new suburban developments, spurred on by auto-found accessibility, grew in a sprawling pattern that made transit service to these areas difficult if not impossible.

In response to the phenomenal growth of the automobile, Congress passed the Federal Aid Highway Act of 1956. This act established the Interstate System of National and Defense Highways, one of the most massive public works programs ever undertaken. Almost twenty years later, it is still an ongoing program in many places. The Interstate System was to have a profound impact not only on transportation but on society in general. It provided for an unprecedented 90 per cent federal funding of eligible highway projects.* Ostensibly, the purpose of the act was to provide limited access, safe, high-speed highway connections between major urban areas of the country. It quickly became apparent, however, that the program was becoming much more than a system of intercity connections. Large intra-city networks of freeways soon developed into the planning stages, as many ambitious people saw the Interstate System as a panacea for urban ills. Boston was no exception to this. This period of ambitious highway growth in the 1950's and 60's saw the construction of many Interstate type highways in the Boston area (although not all of them were built with Interstate money). These included the Central Artery, the Northeast Expressway, the Southeast Expressway, Route 128, and the Massachusetts Turnpike. Additionally, several other facilities were planned, but for a variety of reasons were not completed. These will be discussed later.

While governmental response to highway demand via the Interstate program was aggressive and energetic, its response to the deterioration of the nation's transit systems can best be described as lackadaisical and half-hearted. Transit and commuter railroad operations deteriorated at an alarming rate. Where they were absolutely necessary, they were supported by meager operating subsidies, often given grudgingly.

Recently, accusations have been made that the concurrent decline of transit and the rise of the automobile was not merely a manifestation of consumer demand, but rather, that this fundamental change in the nature of urban transportation (and its resulting impacts) was the workings of a Machiavellian conspiracy by auto-oriented interests that had designs on ruining the transit industry. Quite specifically, General Motors, Firestone Rubber, and Standard Oil of California have been accused of acting in collusion during the 1930's in the Los Angeles area to sabotage the street railway network (which at the time, was the largest in the world). The companies are accused of buying up the line, ripping up the track, disposing of the private right-of-way, replacing the electric streetcars with General Motors buses on city streets, and then selling the line. GM is accused of having used a holding company, National City Lines, to repeat this practice in several locations across the country. GM stood to benefit not only from the additional auto sales they incurred because of riders being diverted from newly disembowled transit systems, but also from those who by choice or necessity continued to ride the buses, since GM had (and still does have) a virtual monopoly on bus manufacture in this country.

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*Federal highway programs are funded with varying amounts of federal participati depending on the program. The previous maximum participation was 70 percent.

Ironically, the highway and auto juggernaut became a victim of its own success. A succession of events occurred in the late 1960's and early 1970's that began to slow the seemingly insatiable demand for more cars and more highways. Briefly, they are as follows:

-Section 4(f) of the Department of Transportation Act of 1966, as amended, makes it difficult to build highways through parks and recreation areas.

-National Environmental Policy Act of 1969. Requires the preparation of an Environmental Impact Statement for highway and other major public works projects. Requires a full and complete assessment of a project's impact on its surroundings.

-Clean Air Act of 1970. In order to meet the air quality standards contained in this section many urban areas are being forced to restrict automobile use.

-Increased public awareness of and participation in the planning process. Communities have become less willing to accept and pay the price for the generally defined progress of highway and urban renewal programs.

-Undesirable side affects of an automobile oriented society. Air and noise pollution, extensive land requirements for new highway rights--of way and parking lots, growing demand for gasoline and raw materials used in auto manufacture, and the promotion of low density, sprawling real estate development all provided bad publicity for the automobile.

The combined effects of the above mentioned factors and the deterioration of several major transit systems to the crisis stage resulted in federal recognition of the seriousness of the problem. Passage by Congress of the Urban Mass Transportation Assistance Act of 1964, was a major recognition of the problem. This Act provided for limited funding of transit systems mainly through capital grants. Since that time, slow, steady progress has been made in improving the scope and amount of transit assistance provided by the federal government. The passage of the Federal Aid Highway Act of 1973 opened up to transit projects for the first time the previously sacrosanct Highway Trust Fund. However, the available funding is still meager compared with that provided for highways, and no money has yet been made available to subsidize transit operations. Funding is still limited to capital grants and planning activities. Efforts are being made presently in Congress to expand the scope of transit aid to operating funds but they have not been successful to date.

The momentum of political support for alternative modes of transportation has shifted significantly in the past few years from automobile to transit.

Nowhere has this shift been more dramatic than in Massachusetts. As mentioned previously, the period of the 1950's and 1960's in Boston was characterized by rapid growth and expansion of the highway network coupled with a precipitous decline in ridership, level of service, and rolling stock of transit systems.

In the late 1960's, however, highway officials found themselves faced with increasing opposition to their expansion plans, many of which were into the desig stage. The opposition manifest itself most dramatically when, in November 1972, after a thorough re-evaluation of transportation in the Boston area, Governor Francis Sargent established a new direction for transportation policy for the area inside Route 128. General purpose expressways would no longer be built in this area. Instead, it would be public policy to encourage the growth and usage of public transportation, in order to achieve a workable compromise between the automobile and public transportation for Boston proper and its proximate suburbs.

This section has provided an historical perspective on the evolution of transpor tion policy, planning, and operations on both a national and local level. In th following sections, the roles of the principal agencies involved in transportati in the Boston area will be discussed; the existing highway and transit networks will be described.

B. Principal Actors

There are several agencies and groups involved in surface transportation in the Boston area. They are described briefly as follows:

-Executive Office of Transportation and Construction (EOTC). The head of this agency is the Executive Officer of the Governor in the field of transportation and construction. This agency has the statutory responsibility for coordinating state transportation planning. The head of this agency wi on behalf of the Governor, assume the lead role in the development and implementation of transportation plans for the Boston region.

-Massachusetts Department of Public Works (MDPW). The MDPW has the statutor responsibility to plan, design, and build highways and related facilities.

- Massachusetts Bay Transportation Authority (MBTA). The MBTA is the transit operating agency for the 79 cities and towns that constitute the MBTA district. The MBTA also subsidizes the commuter rail operations by the Penn Central and the Boston and Maine Railroad. The MBTA Advisory Board consists of the senior elected official (or his representative) of each of the communities within the MBTA district. The Board has power of approval over MBTA capital investment plans and the MBTA annual budget.

-The Metropolitan Area Planning Council (MAPC) has statutory responsibility for comprehensive regional planning in the 101 community Boston Metropolitan Area Planning District. MAPC is responsible for regional comprehensive planning in relation to transportation planning. It also has responsibility for liaison between land use planning and transportation planning activities.

-Joint Regional Transportation Committee (JRTC). The JRTC is the principal mechanism for public participation in the transportation planning process. It is not a statutory agency; rather, it was established through memoranda of understanding among EOTC, MDPW, MBTA, MAPC, and the MBTA Advisory Board. It provides review and comment on transportation proposals in the Greater Boston area.

C. Present Operations

1. Highway Network

The highway network in Greater Boston reflects the growth and expansion of that mode in the 1950's and 1960's, and its subsequent de-emphasis.

Major limited access roadways in the area include:

Radial

--Mass. Route 3 (Southeast Expressway). From the South Shore and Cape Cod throug Weymouth, Braintree, Quincy, and Milton.

--Interstate 90 (Massachusetts Turnpike). Provides direct access into downtown Boston from the west through Framingham, Wayland, Weston, and Newton. Part of the Interstate System, it is a major access route to Hartford and New Y City.

--Interstate 93. Provides access into Boston from the north through Reading, Stoneham, Medford, and Somerville. Part of the Interstate System, it is a major access route to New Hampshire and Vermont.

--Northeast Expressway. Provides access from the north via Revere and Chelsea. Connects with U.S. Route 1 in Revere to provide the major access from Interstate 95 north of Route 128 in Danvers.

Circumferential

Mass. Route 128 is a circumferential route around Boston, approximately 10 miles from downtown.

Interstate 495 is another circumferential route, approximately 25 miles from Boston.

Beyond Mass. Route 128

Other major access highways approach Boston radially, but do not penetrate into the city. Most of these terminate at Route 128. They include the following:

--Route 24 approaches from the south through Randolph. It is a major regional link from Taunton and Brockton. It terminates at Route 128.

--Interstate 95 (south) approaches from the southwest through Canton. Part of the Interstate System, it is the major route to Providence, R.I. and other points south and west. It also terminates at Route 128. U.S. Route 3, approach Boston from the northwest through Billerica, Bedford, and Burlington. It is the major access route to Lowell and one of the gateways to New Hampshire.

--Interstate 95 (north) approaches Boston from the northeast through Middleton and Danvers. It is a major gateway to the New Hampshire coast and the State of Maine, in addition to being an important regional link to Newburyport. At present, it terminates in Danvers, joining U.S. Route 1. Construction is in progress to extend it south to terminate at Route 128 in Peabody.

Other Routes

In addition to those mentioned above, several other major roadways approach Bosto In some locations they have limited access (i.e. interchanges only); in others, they often have abutting businesses and intersections at grade. Some of these roadways are parkways operated under the auspices of the Metropolitan District Commission. Major routes include the following:

--U.S. Route 1 (south) approaches Boston through the suburbs of Westwood and Dedham, and passes through the Boston neighborhoods of West Roxbury, Jamaica Plain, Fenway, and Back Bay.

--Mass. Route 9 (Boston-Worcester Turnpike). Prior to construction of the Massachusetts Turnpike, this was the major route to Worcester from Boston. It approaches from the west through the suburbs of Natick, Wellesley, Newton, and Brookline, and through the Boston neighborhoods of Roxbury and Back Bay.

--Mass. Route 2 (Concord Turnpike) approaches Boston from the northwest through the suburbs of Concord, Lincoln, Lexington, Arlington, and Belmont, where it connects with the MDC Parkway System. It is a four lane highway through Concor and Lincoln. It is a high-speed, limited access route from Route 128 to its terminus at the Cambridge-Arlington line.

--U.S. Route 1 (north) approaches Boston from the north through Peabody, Lynnfiel Saugus, and Revere. Although the roadway through Peabody and Saugus has grade separated interchanges, the road is heavily lined with retail trade establishments and motorist-oriented services.

Several other major Interstate-type highway projects were into final design or construction in the late 1960's and early 1970's, but were cancelled as a result of Governor Francis Sargent's November 1972 policy statement on transportation. They include the following:

--Interstate 95 (north) connection from Boston to Route 128.
--Interstate 95 (south) connection from Boston to Route 128. A new arterial stree is planned for this corridor, which was already cleared for construction.
--Inner Belt. An inner circumferential route (similar in concept to Route 128), passing through Somerville, Cambridge, Brookline, and Boston.

--Third Harbor Crossing. A general purpose highway tunnel under Boston Harbor to Logan Airport. A revised proposal for a special purpose tunnel was also defeate in the Massachusetts Legislature in 1974.

2. Public Transportation

The public transportation network in Boston, like the highway network, can be understood best in light of its historical evolution. Namely, it is an older system, characterized by a fragmentary network that reflects piecemeal acquisitio on now defunct transit companies by the MBTA, a deteriorated rolling stock due to lack of funds to purchase new equipment, and a transit service network that does not extend far enough into the suburbs to attract ridership there. Efforts are now being made to reverse the deterioration brought on by years of neglect.

There are essentially three major components of public transportation in metropolitan Boston: rail rapid transit, commuter rail service, and bus service. Additionally, there is a commuter boat service that operates one trip daily in each direction between Boston and Hull. The three major components are described in detail below:

a)Rail Rapid Transit Service. This is the Massachusetts Bay Transportation Authority (MBTA) fixed rail network that is familiar to most people. It comprises the following lines:

--Red Line. Runs from Harvard Square, Cambridge, through downtown Boston, with two terminals at its southerly end. The older terminal is in the Ashmont section of Dorchester, Boston. There is an across the platform transfer at Ashmont station to a high-speed trolley line that continues to Mattapan. The newer section of the Red Line deviates from the old right-of-way south of Andrew Station, and terminates at Quincy Center. This is the only rapid transit line with new equipment. 76 of the cars were purchased when the line was expanded to Quincy Center in 1968. This line is targeted for major expansion both to the north west beyond Harvard, and to the south beyond Quincy Center. This proposed expansion will be discussed in Section III of this paper.

--Orange Line. This line provides service from Everett south through Charlestown to downtown Boston, continuing south through the South End, Roxbury, and Jamaica Plain sections of Boston to Forest Hills. This line is also scheduled for extensive expansion. This will be discussed in Section III.

--Green Line. This line provides service from Lechmere Square, Cambridge, through downtown Boston and Back Bay in the Boston Central Subway (the oldest subway in the United States) and separates into four distinct lines to the west and south. They are as follows:

--Arborway Line. This line runs in the median strip of Huntington Avenue as far as Brigham Circle. It then becomes a surface line on local streets to Arborway in Jamaica Plain, where it meets the Orange Line at Forest Hills.

--Riverside Line. This line operates on a private right-of-way for its entire length from the Central Subway through Brookline and Newton to its terminus at Riverside Station at Route 128. This service is presently being upgraded. A new roadbed is under construction, and new light rail vehicles are being built as a cooperative venture with transit authorities in San Francisco and the Urban Mass. Transportation Administration.

--Cleveland Circle Line. This line runs in the median strip of Beacon Street through Brookline to Cleveland Circle at the Brookline-Newton line.

--Boston College Line. This route operates in the median strip of Commonwealth Avenue through the Allston-Brighton sections of Boston as far as the Boston-Newton line at Boston College.

--Blue Line. This route operates from Bowdoin Square in downtown Boston near Government Center, under Boston Harbor and through East Boston to Wonderland Race track in Revere. It provides transit access to Logan Airport via a shuttle bus.

b) Commuter Rail Service. Boston is one of the four cities in the United States having any substantial railroad commuter service. (The others are New York City, Chicago, and Philadelphia). Service is provided by the Boston and Maine to the north and west, on eight routes to distances of 20 to 35 miles from Boston. Service is provided from 5:20a.m. to 12:10a.m. on weekdays. Service varies from 2 trains per day on the Bedford, Newburyport, and Haverhill routes to 74 trains per day on the New Hampshire route.

The Penn Central provides commuter rail service on five routes extending to the west and south. The length of these routes varies from 14 miles from Boston on the Needham Branch, to 44 miles on the Providence Route.

Service is operated from 6:00a.m. to 9:30p.m. Service ranges from 4 trains per day on the Stoughton route to 23 trains per day on the Needham route. The lines operated by the respective railroad are as follows:

Penn Central
Needham Branch
Franklin Branch
Stoughton Branch
Shore Line (to Providence)
Boston and Albany Main Line (to Framingham and Worcester)

Boston and Maine
Fitchburg Main Line (to Ayer)
Lexington Branch
West Route Main Line
New Hampshire Main Line (to Lowell)
Woburn Branch
Wilmington Junction Branch
Eastern Route Main Line (to Newburyport and Rockport)
Gloucester Branch

c) Bus Service. Bus service is operated in the area both by the MBTA and 17 private operators. The route network is too extensive to describe in any detail; the MBTA alone operates 701 route miles of service. The bulk of the network consists of local buses on surface streets.

Express service is provided both by the MBTA and private carriers. MBTA express service is operated via the Massachusetts Turnpike to downtown Boston from Riverside, Waltham, Newton Corner, and Watertown Square. Express service via Interstate 93 is operated from Medford. Several private operators provide express bus service into Boston from outside Route 128. In the summer months the MDPW provides a "wrong way" express bus lane on Route 3 (Southeast Expresswa for private bus operators.

Implications

This section has documented the evolution of transportation planning, policy and operations in greater Boston since World War II. A massive program of highway construction characterized much of the era; in contrast, a major change in public policy occurred near the end of the period - a change in emphasis from highway oriented transportation to public transportation. The present condition of Boston's transportation network is a reflection of these changes; uncompleted superhighways contrast with a transit system that is burdened with much outdated, obsolete equipment.

The succession of transportation policies and programs over the era in question has had the following implications:

--Most growth occurred in areas that could readily accomodate automobiles or that were amenable to highway construction. As a result, large suburban commercial and residential developments sprouted around expanded highways in outer suburbs. (For example, Route 128, Interstate 495). Cities attempted to counter this growth by appropriating more and more of their downtown space for streets and parking lots.

--Major shifts in land-use took place. The core areas of cities became less important as focal points of activity, particularly in retail trade, as they were forced to compete with new suburban areas.

--The level of mobility of non-drivers was reduced. Many of the new suburban areas were inaccessable by public transportation, thus excluding many poor, old, and disadvantaged members of society from employment and recreation opportunities in these locations.

--Government encouraged automobile growth precipitated the decline of public transportation. Less ridership meant more infrequent service for those who were still forced to use public transportation.

--Major investment is needed to upgrade public transportation services in many areas. Although official state and local transportation policy favors public transportation, much work is needed to make preparation for the years of neglect. This task is made even more difficult because of the stringent new environmental laws that were instrumental in halting many highway projects; these laws also apply to transit projects.

In section III, the proposed improvements to the existing system will be examined.

III. Prospects for the Future

A. Highway and Transit Improvement Programs

As described in Section II of this paper, transportation policy in the Boston region assumed a strong transit orientation in the early 1970's. Consequently, new construction and expansion plans for transportation facilities in the Boston region lean heavily towards improving the long-neglected public transportation system; highway projects are on a smaller scale than in the past.

Many are aimed at achieving operational and safety improvements within existing right-of-way. Major transit and highway improvement projects are described below.

1. Transit and Commuter Rail Improvements

These improvements are grouped together because many of the MBTA's expansion plans include acquisition of existing commuter rail right-of-way for conversion to rapid transit or upgrading for continued commuter service.

a) Projects in Process

--Southwest Corridor/South Cove Tunnel, Phase I. This is a new transit tunnel on the Orange Line that extends from the present tunnel at Washington and Kneeland Street to the Massachusetts Turnpike. This tunnel has been completed and will be utilized as part of the southerly Orange Line expansion to West Roxbury and Needham.

--Haymarket North. This is a northerly extension of the Orange Line to replace the elevated structure to Everett through Charlestown. This line crosses the Charles River in a new tunnel and proceeds along the Boston and Maine's Reading right-of-way to Oak Grove at the Malden-Melrose Line. Construction on this line is almost complete.

--Green Line Improvements. This project provides for new roadway and trackage, clearance and traffic improvements, new power facilities, and other improvements to the most important link in the rail transit network. Additionally, the MBTA has recieved a capital grant from the Urban Mass Transportation Administration for the purchase of 150 new light rail vehicles. These new, air-conditioned vehicles will be 71 feet long, articulated, and capable of 55 m.p.h. speed.

--Other New Rolling Stock. 44 new rail cars are being obtained for the Haymarket North Extension of the Orange Line. Additionally, 36 new cars are being purchased to replace a group of 50 year old cars on the Blue Line.

--Other Improvements. Several other improvements are being made to the MBTA system, but they are too numerous to mention here. They include station modernization, plant improvements, purchase of new buses and trackless trolleys, and purchase of maintenance and safety equipment.

b) Proposed Projects

--Commuter Rail Improvements. This includes purchase of additonal right-of-way from the Boston and Maine, and upgrading of these and other right-of-way previously acquired from the Penn Central. This project also has provisions for improvements to commuter rail rolling stock, terminals, and service facilities. Some of the right-of-way are scheduled for conversion to rapid transit operation. They are discussed on a project-specific basis below.

--Extension of the Blue Line to Lynn and beyond *via* several alternative rail right-of-way. Possible extension to Peabody.

--Extension of Orange Line north from Oak Grove. Three alternative terminals are under consideration: Route 128, Reading Center, and Interstate 93.

--Extension of Red Line from Harvard Square. Extension to Arlington Heights *via* Porter Square and Davis Square, Somerville. Possible further extension to Route 128 in Lexington.

--Extension of Green Line from Lechmere to Washington Street, Somerville. Relocation of Orange Line from South Grove to Forest Hills. This project proposes to relocate the Orange Line from the South Grove tunnel (see part A of this section) to Forest Hills *via* the Penn Central right-of-way.

--Extension of the Orange Line from Forest Hills through West Roxbury. This extension would proceed *via* the Penn Central Needham Branch to West Roxbury and beyond, possibly to Needham.

--Replacement Transit Service in the South End. This proposal would utilize the presently unused Green Line tunnel under Tremont Street then onto local streets in the South End.

--Replacement Transit Service in Roxbury. This service would be provided *in lieu* of the Orange Line service once that route is relocated.

--Green Line Improvements from Brigham Circle. This project would attempt to improve service on the section of the Arborway Line beyond Brigham Circle.

--Red Line South Shore Extension to South Braintree. This expansion of service would go from the present terminus in Quincy Center to South Braintree, or possibly beyond to South Weymouth.

--Blue Line Extension to Back Bay. This would extend the terminus of the Blue Line from Bowdoin Station in Government Center under Beacon Hill and Boston Common to connect with the Green Line under Boylston Street between Charles Street and Arlington Street.

--Inner Circumferential Transit. This circumferential route would follow the route of the once-proposed Inner Belt highway from South Station on the south to Sullivan Square on the North.

--Other Improvements. The MBTA has several other plans for improvements. These include such items as new bus garages, plant maintenance, plant improvements, fare equipment, communications equipment, assistance to private operators, track work, signals, station modernization, and new bus acquisition

2. Highway Improvements

As mentioned previously, proposed highway improvements in the Boston area are on a much smaller scale than in the past. Although there are some large scale projects, many of the projects are geared to achieve operational and safety improvements on existing roadways, through channelization of traffic, signalization, and signing. Some of the more important projects either in the planning stages or underway include:

- --Interstate 95 (north) connection to Route 128 in Peabody
- --Arterial Street in Southwest Corridor (in lieu of Southwest Expressway)
- --Route 3 upgrading from Boston to Braintree.
- --Route 128 widening in Danvers, Beverly, and Wenham.
- --Route 2 improvements in Acton, Concord, Lincoln, and Lexington.
- --Route 2 improvements in the Alewife area
- --Central Artery depression in downtown Boston.
- --North Terminal Area. North Station to Charlestown.
- --TOPICS and Urban System improvements. Small scale operational and safety improvements. Several locations, in many cities and towns.

B. Implications

As is obvious from the material presented in Part A of this section, the Boston area has chosen a core intensive transit oriented transportation policy for the next ten years. Implementation of this policy will be typified by the following actions:

- --Expansion of transit service to outer suburbs via extension of rail rapid transit lines.

- --Upgrading of transit service via new equipment for inner suburbs and outlying sections of Boston.

- --Improving intra-inner city transit service to accomodate to the needs of those who live there and to provide for adequate distribution of trips that originate outside of the inner-city.

These proposed improvements to the transportation system will tend to have the following implications for the metropolitan area:

- --Encourage stable, orderly, and efficient land use patterns that are amenable to transit service.

- --Encourage investment of resources and energy in the city as a desirable plac to live, work, shop, or play.

- --Provide a broad-based increase in the mobility of the population, without many of the distributional inequities inherent in highway mobility. These improvements do not exclude as users those who are "mobility deprived" in an auto-oriented society, such as the young, the old, and the poor.

- --Encourage trips both into and out of the city. Reduce balkanization of the population by economic, social, and demographic characteristics.

In summary, it appears that the official transportation policy and proposed tran portation improvements scheduled for the Boston region within the next ten years are compatible with and should complement the objectives of the Metropolitan Planning Project. It appears that the most effective way of achieving transportation improvements that are compatible with the project's goals is to support the present official policies.

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HOUSING AND EDUCATION:

THEIR RELATION TO THE ELIMINATION OF RACIAL AND ETHNIC ISOLATION AMONG SCHOOL AGE CHILDREN IN THE BOSTON METROPOLITAN AREA.

Prepared for

The Metropolitan Planning Project

Thomas E. Nutt
and
Bonnie R. Powell

ABSTRACT

This policy paper addresses three questions:

- --How does the housing system work?
- --What is the current situation/status of housing in the Boston SMSA; and how does it affect the racial and social isolation of school age children?
- --What approaches to housing policies are most likely to be useful in implementing the Metropolitan Planning Project's mandated educational goals?

The first of the paper reviews the operations of the housing system, focusing on its fluid character and the basis used by various actors--occupants, owner/investors, public officials, lending institutions, and so on--in the system to make decisions.

The second section details (with maps) the variegated pattern of housing in the Boston SMSA, with particular attention to price and access factors as they are related to housing choice for minorities. Minorities are centralized in regional centers and subcenters. Local decisions apparently work to limit minority access in a substantial number of Boston SMSA towns and cities.

The third section suggests policy approaches at federal, state, and local levels. The federal level needs clarity in policy direction and provision of implementation tools. Massachusetts as a state has an impressive array of resources for housing development and provision of equal access, but lacks aggressiveness in utilizing these tools. Ultimately, localities must take positive action on assuming a fair share of responsibility for providing low and moderate income housing. The education system can indirectly assist localities in these positive actions. Additionally, school systems should have staff capacity to monitor and analyze changes in the housing market to anticipate changing educational needs.

INTRODUCTION

For most people, housing means finding a place to live--house hunting, apartment looking--a concentrated, often time consuming search culminating in the relief of settling into a "home." Individual contact with the housing system occurs infrequently, leading most people to view housing and the housing system as a static collection of immovable objects. For most individuals, buying a house is, in economic terms, a "lumpy investment"--it occurs at one point in time; it presents a large outlay of resources; and once the house is bought, that decision is relatively immutable. The purchase of a house is generally the largest single expenditure of an individual's lifetime. Even though many people now choose to rent, participate in cooperative ventures, or invest in condominiums, these commitments--long-term leases, articles of condominium, and the like--still represent a substantial outlay and use of personal resources. People commit not only financial but also psychological, emotional, and sociological resources when they decide where to live and choose what they will live in. A housing unit expresses hopes (even dreams), values, and expectations about life in terms of style, quality, and long-term goals. Cultural and personal values are revealed in the initial choice of a house and grow stronger over time as an individual or a family lives in a "place" and makes it into a "home." These factors, in action and reaction, contribute to the creation of one of the oldest American myths which is the belief in each man's right to individually own and hold at least one small piece of property. Given this deeply held conviction and the myths surrounding it, we find readily understandable the general public view and acceptance of the housing system as a static collection of unchanging composition and bulk.

Yet, even the briefest, more general, consideration of the housing system reveals it as constantly changing, always fluid. New units are built; existing units are converted to alternative uses; buildings are demolished to make room for other structures. Individuals and families move into and out of new and old units. Neighborhoods change--racially, ethnically, economically. There is always activity in the market; the system is never still.

Understanding that this activity occurs as well as defining and explicating the forces which act on the housing system to determine the nature of this activity are central to generating and implementing any policy relating housing to education, specifically in terms of eliminating racial and ethnic isolation among school age children.

HOW DOES THE HOUSING SYSTEM WORK?

Preliminary to any understanding of actions/reactions in the housing system, it is necessary to know of what the system is composed in terms of actual dwelling units. There are any number of ways in which the housing system can be described. One frequently used descriptive means, in terms of quantative assessments of the system, is identification of the existing housing stock. This identification can be accomplished in a variety of ways. A common method is taking an inventory; and obviously, any inventory must also account for various changes in the housing stock over time. Typically, the dicennial US Census of Housing is used as base data. The aggregate inventory at any time subsequent to the final collection date for census information is determined by measuring (1) units added to the inventory (through new construction, conversion, and other sources) and (2) dwelling units lost from the inventory (through demolition, mergers, and other means--fire or natural disaster, for example).

When working from an aggregate inventory of housing stock, additional measures are not only useful but are often also necessary. For instance, the housing stock can be divided into standard and substandard categories. Standard housing meets generally accepted, quite broad measures of housing quality, usually within the context of federal housing policy which aims at achieving "decent, safe, and sanitary" housing. Substandard is, of course, the contrary measure and typically includes those units either lacking plumbing facilities or those with plumbing in need of major repairs.

Yet another way to measure housing stock is by assessing the types of dwelling units available. Two general measures are single-family dwellings and multi-family dwellings. Single-family dwellings may be detached (that is, a free-standing house) or attached (a townhouse, for instance). Multi-family might be high rise or mid-rise--such type generally have elevators; or they may be walk-up--usually two or three floors. Similarly, dwelling units may be categorized by the type of construction, such as masonry or frame.

Each of these several measures of the housing stock has its own particular utility. For example, the distinction between single family and multi-family dwellings is a good indicator of the density of use of land in a given area. Similarly, knowing the type of construction or condition of a unit indicates the safety and/or quality of life possible for its occupants. Masonry construction is more fire resistant than is wood frame, for example, while the extent of substandard housing in a given locality provides at least some indication of the physical and/or social problems of that locality.

However, as noted earlier, aggregate measures of the housing stock remain at best descriptive, so they do not in themselves give much indication of how the housing system works. Nor do they amplify or explicate what sorts of policies and programs should be adopted to meet certain goals. Thus, alternative measures are needed. A more useful approach, at least for our purposes, is one which looks at the "actors" in the system and the means employed to reach the desired ends of each actor.

Actors in the housing system fall into two broad groupings: residents (both owner-occupants and tenants, with condominium residents somewhere between the two groups but leaning toward the owner-occupant category); and others with a direct concern for the market (including--but not limited to, owner-investors, housing managers, banking and public officials). Resident actors tend to be influenced by qualitative concerns while other actors are generally motivated by a desire to achieve efficiency within the housing system.

A close look at resident choices of housing permits a better understanding of how these choices change and activate the system. There are at least five readily identifiable concerns influencing residential housing choice.

The basic concern of any resident is shelter. Shelter is precisely that--protection from the elements or from enemies. The standard/substandard distinction in housing arises out of the concern to guarantee a minimum level of physical protection. In order to accomplish this goal,buildings must be constructed in accordance with certain criteria which are usually legally specified in state and local building codes.

A second residential concern is privacy. This concept can be variously interpreted but here refers to the valuative dimension of housing. Housing provides the privacy--freedom from public view--that enables a resident to maintain discretion in his/her life patterns. It permits value differences, for the expression of differing and dissimilar tastes, for the manifestation of cultural and personal traditions, and so on. In a sense, we inhabit our values as well as our houses. Typically, the preference is for a house ("home") to reflect, as much as is possible, personal values. This want may be frustrated by the nature of the design (as for example in having a dining room separate from the kitchen when one prefers to take all meals in the kitchen), or by the kind of legal relationships involved (owners have a greater opportunity to modify space to suit individual tastes than do tenants).

A third concern is location. Availability and cost of transportation within the locale and to other locations is important, especially the trip to work. The geographic position of a neighborhood or subdivision within a city/county is a part of the location decision. Also, the sociological nature of the area has some bearing on housing choice. Neighborhood characteristics often manifest personal and social life styles. Where one chooses to live generally makes some statement about life priorities.

Environmental amenities constitute a fourth concern. While closely related to location, this particular concern explicitly reflects the choice factors related to services provided by the community--schools, parks and recreation facilities, cultural opportunities, city services, physical appearances, and the like. Choices in this area are clearly subjective, permitting a wide range of values and judgements among potential residents.

As was pointed out in the introduction to this paper, housing is a "lumpy investment" for both owners and tenants; thus, it is the investment of financial resources that is a fifth and vital concern in residential housing choice. Monthly housing cost (rent/mortgage, utilities, taxes, and related expenses) is a key factor in every housing decision and frequently outweighs/overrules the first four factors combined. Often, housing choice is almost completely dependent on available income, and any other concern must be considered a distant second.

In sum, the resident reaches a housing decision based on qualitative measures. Will this house hold up? Is it a nice house? Do I like it? Can my family grow in it? Is it where I want to be? Will I like the neighbors, the town, the school system? Can I afford it?

The remaining actors in the housing system generally reach decisions based on more quantitative criteria composed of efficiency measures, though there clearly exists a continum between the two primary emphases. Much of housing policy is developed by public officials. Federal and state officials, both legislative and administrative, tend to be concerned with issues of aggregate housing stock. Thus, Congress might pass legislation enabling the construction of X million new housing units, or the Massachusetts legislature might create the Massachusetts Housing Finance Agency (MHFA) with a bonding capacity of X hundred million dollars. The Federal Housing Administration (FHA) and the MHFA, as implementation agencies, are concerned with meeting policy goals, and through this process take a first step toward establishing efficiency as a central standard. City officials do make decisions on qualitative grounds, even when such decisions lead to diseconomies in service provision or loss of possible tax revenues. For example, planning and zoning officials may maintain a particualr zoning pattern (large-lot zoning, for example, which effectively eliminates the possibility of multi-family housing) to preserve a certain residential quality. Similarly, planned unit developments (PUD's) may not be permitted, even though there would be clear savings in infrastructure expense (street construction costs, water and sewer costs) and in maintenance (street cleaning or garbage collection). Alternatively, city officials, especially those concerned with raising revenue, may be inclined toward more efficient tax producing uses of land. Thus, a large apartment development may be encouraged and approved by town officials even though other citizens--those concerned with preserving existing residential patterns--may strongly oppose it. School officials may favor or oppose development of new family housing when they assess the capacity to absorb more students, not only of the existing physical plant but also the operating budget.

Owner/investors and lending institutions have roughly comparable goals, which may be summarized in the phrase, "ensuring an adequate return on investment." The owner/investor takes a more active interest in a given housing development because (1) a higher proportion of his funds are tied up in a given project, and (2) his ability to develop and own other housing often depends on the "track record" established in previous developments. The profit margin can vary widely, depending on the general state of the economy and the market situation in the particular location. In a narrow profit margin situation, the owner/investor cuts costs to an even greater extent, often sacrificing amenities or other qualitative dimensions to ensure a satisfactory rate of return. (This is possible only up to the point of rental potential; tenant resistance to inadequate amenities in housing can make a project infeasible.)

Since the only commodity a bank has is money, its participation in the housing system is determined by bankers' decisions on whether or not to place its money via loans/mortages in this arena. Thus, banks make choices based on even narrower efficiency criteria, focusing almost exclusively on the security provided for loans and on the resale value of the property in cases of foreclosure. All decisions on qualitative dimensions must occur prior to bank determination of approval of mortgage applications. Simple cost criteria are considered adequate to make such decisions.

If a single measure merges from the perspectives of the various actors involved in the housing system, it is that of price. Any or all of the qualitative measures can be modified or eliminated so that a housing rental/purchase will conform to a dollar amount, but price cannot bend to the qualitative dimensions. Amenities entail costs. Almost always, something is compromised to meet a dollar figure. There are complex relationships, indeed, between price and the various other residential/ choice factors (shelter, privacy, location, and amenities). Taken together, these interrelationships serve as an economic model of the housing system.

Beyond these factors are a variety of socialogical friction-creating dimensions which are in the margins of the housing system. Among these are: tradition; racial and ethnic discrimination (access to particular neighborhoods); the vagaries of available mortgage money (affected by the processes of the general economy); national political decisions (for example, halting federal housing construction subsidies without equivalently replacing the funding sources in the system; or using housing starts to prime or cool off the economy): and other similar actions/reactions.

THE BOSTON SITUATION--WHAT DO WE KNOW?

The Boston SMSA contains seventy-eight cities and towns. The 2,753,700 persons living in the SMSA occupy 859,701 dwelling units; 47.4 percent of which are rented. Not all available dwelling units are occupied as the SMSA has a vacancy rate of 4.1 percent. While these data convey some basic information on the numbers of towns, houses, and people, they cannot, standing alone, provide detailed description of the Boston housing system. Understanding of the current situation is enhanced by focusing on the factors of price and access, and how they effect changes in the housing inventory, as well as how they influence the residential settlement patterns of minority populations. As noted earlier, price includes the various factors comprising a monthly housing cost. However, for most purposes, simple value of owner-occupied units and contract rent for rental units provide an adequate basis for comparison and analysis. Access encompasses several more complex factors (availability of subsidized housing, for example) which relate to the many marginal frictions (racial and ethnic discrimination, for instance) which affect the more straightforward economic model of a housing market. One final definitional note is necessary. In a housing market which is the size--in area and population-- of the Boston SMSA, submarkets emerge. These are defined both geographically and residentially, that is by type of resident. In an analysis of the overall market, a matrix emerges in which changes in certain submarkets entail changes in others. In the most sophisticated of models, determinative coefficients of change can be developed, showing how fluctuations (say in vacancy rates or contract rents) affect each other submarket. Though such a detailed analysis is not possible here, the point is that change within a submarket is felt throughout the system--there is always movement in one market or another, thus the system is never static.

According to the 1970 census, 5.48 percent (149,360) of the population in the Boston SMSA was non-white. Two of the cities within the SMSA (Boston and Cambridge) account for the largest concentrations of non-white residents. The two combined have 125,315 non-whites, which is 84 percent of all non-whites and 5 percent of the SMSA's total population. In addition, Cambridge with 8.92 and Boston with 18.15 are the only two communities where the percentage of non-white population exceeds the proportion for the entire SMSA. In sixty-five of the SMSA's seventy-eight communities, the non-white population is less than 2 percent.

The residential settlement pattern of non-whites in the Boston SMSA is illustrated in Figure 1. (It is worth noting here that the distribution of Spanish speaking residents is the non-white residential pattern, but at lower percentages.) The distribution can best be described as a patchwork pattern in a crazy quilt design. The only expected concentration of non-whites that actually occurs is in the regional and subregional cores (Boston/Cambridge and Lynn), which is related to the industrial/manufacturing categories of employment in these areas. Beyond that, distribution does not seem to follow the usual trend of an outward dispersion from a core concentration, which would be expected if the traditional housing market forces discussed earlier were in effect. It would appear that housing dispersal in the Boston SMSA is controlled by the housing policy choices of the individual communities. In fact, forty-four towns and cities have less than one percent non-white population.

PRICE

Of the various factors affecting movement within the housing system, price is most important. In 1970, the median value of owner-occupied units in the Boston SMSA was $23,800. Figure 2 presents the variation from this median value for communities in the SMSA. Some twenty-six communities had median values ranging from $1,500 downward from the median ($22,299 and down) while twenty-nine had median values that were $1,500 and more over the SMSA median. Of these communities, twenty-five had values of $4,500 and more over the median--some had median values exceeding $50,000.

A rule of thumb often used for purchase of a housing unit is that a family can afford to buy a house at a price that is twice their annual income. Purchasing at the SMSA median would require an income of about $12,000/year, which is only slightly above the 1970 SMSA median of $11,307. Communities with median values of housing units below the SMSA median provide a price attractiveness which, if units are put on the market, would facilitate dispersal of persons with lower incomes. For example, a decrease in median value of units of between $1,500 and $4,500--to between $19,300 and $22,299 as is true in eighteen communities--makes possible housing purchases by families with incomes ranging between $9,650 and $11,150, which are below the SMSA median. The contrary is also the case. An increase in value of $1,500 to $4,500--to values of $25,301 through $28,300, as is true in four communities--ups the rule of thumb income levels to $12,650 through $14,150. Increases over $4,500 further raise income level requirements so that in those communities with $50,000-plus median housing values, an income of $25,000 is basic.

There is no readily discernible "regular" pattern in median values of owner-occupied units by community in the Boston SMSA. There is some expected concentration of lower valued units in the older, more densely built areas, such as Boston, Lynn, and Somerville. Higher valued houses are located in suburban areas; however, the pattern is again decidedly patchwork, reflecting the variations in style and preference that have been chosen by individual towns and cities. Since no community other than Boston and Cambridge has a population with a non-white proportion in excess of the SMSA average (with most communities substantially below it), a correlation between housing cost and minority dispersion is difficult to make. However it is fair to say that the concentration of non-whites in Boston and

Cambridge is made more likely by the owner-occupied housing values of the two communities below and at the SMSA median.

In terms of rental housing, there is less availability of readily affordable units in the SMSA. Figure 3 shows variation by community from the SMSA median of $106 in median contract rent. The bulk of cities and towns, fifty of seventy-eight, have median contract rents $10 or more/month higher than the median; twenty-one of this group have medians $30 or more higher.

The rule of thumb in rental housing is that a family should spend 20 to 25 percent of its income on housing. Using the 25 percent figure, the median rent requires an annual income of $5,000. An increase of $30/month means a corresponding increase in income to $6,440. Though both figures are below the SMSA median income--presumably meaning that price for rental housing is not a constraint on locational choice--closer inspection of the median contract rent in these communities in the $30-plus category shows median rents as high as $189/month, with several exceeding $150. These figures raise minimum incomes to afford the median cost for rental housing in some communities to $7,200 to $9,100.

A look at Figure 3 clearly shows that again there does not seem to be an explanation for the geography since there is no recognizable pattern. As with median cost of owner-occupied housing, the assumption is that community choices as to types and cost of rental housing control the dispersal system. Cambridge, which is above the median rent level, and Boston, at the median rent level, have the bulk of non-whites. Chelsea, the community with the lowest rent level, has relatively few non-whites. Thus, price per se has not related to dispersal of minorities. Access factors consequently loom larger in importance.

ACCESS

A number of factors contribute to the access individuals and families have to housing in any part of the SMSA. Several important factors include:

--percentage of rental units available;

--vacancy rate;

--number of subsidized units constructed.

Figure 4 presents the proportion of rental housing as compared with all occupied housing by community. Since rental housing has a higher transiency rate than owner-occupied housing, indicating more fluidity in the market, the probability of access increases in towns and cities with a high percentage of rental housing. Of the towns and cities within the SMSA, sixty have 40 percent or less of their occupied housing stock in rental units; thirty-six of those have 20 percent or less. Here, the distributions are the more expected, concentric patterns. Boston and Cambridge, at the regional core, have high proportions of rental units, as do Lynn, Framingham and Quincy which are regional subcenters. Moving away from the regional centers and subcenters, one finds decreasing proportions of the housing stock in rental units. A lower percentage of rentals indicates less flexibility in movement of the housing stock, thus limiting access, particularly of lower income individuals and families who often cannot afford to purchase dwelling units.

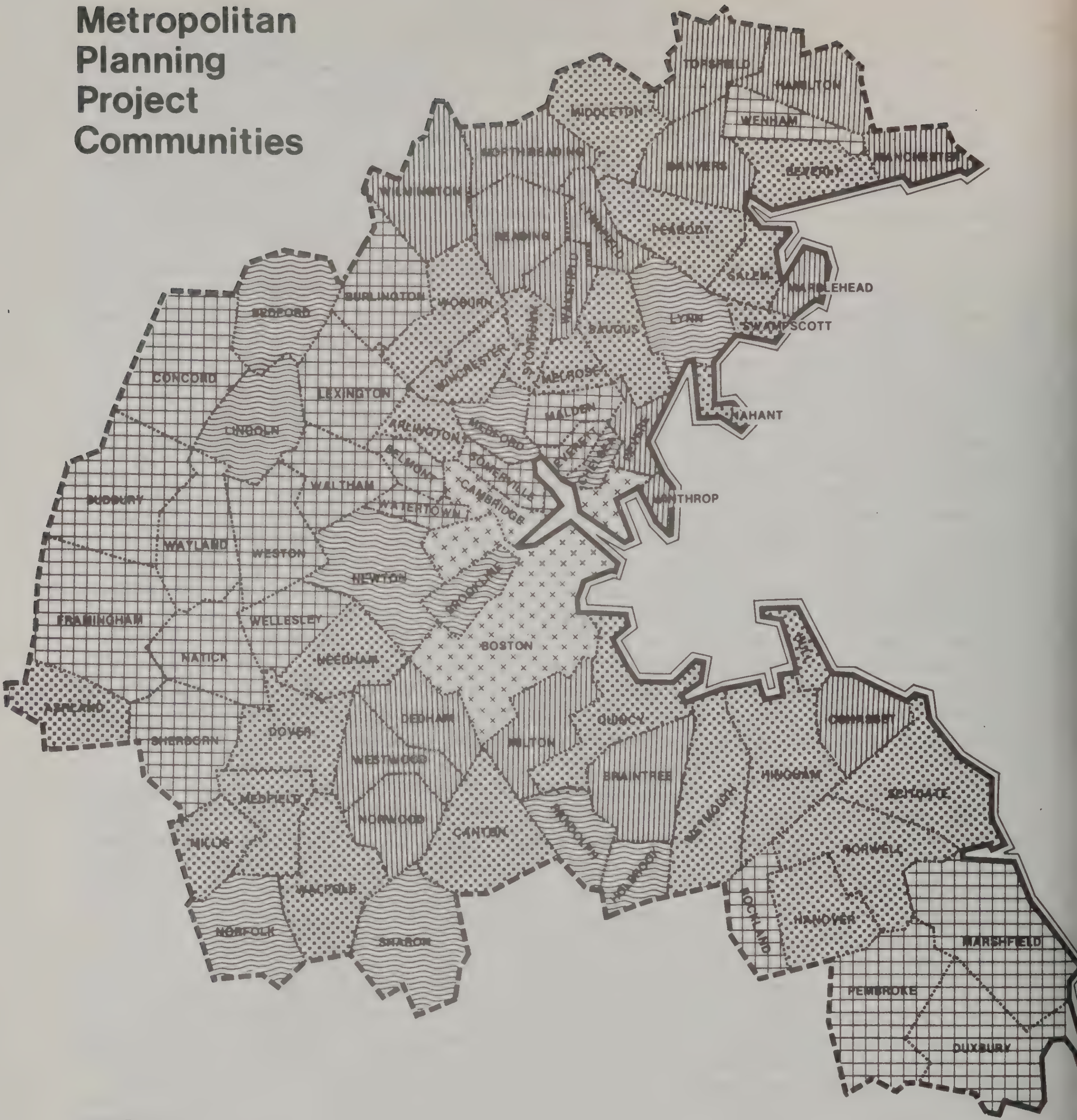
Vacancy rates heavily influence access to housing. A substantial number (thirty) of towns and cities in the SMSA have a vacancy rate of 2.0 percent or less. (See Figure 5.) An additional thirty communities have a vacancy rate of 2.1 to 4.0 percent. Both figures are low and are below the SMSA aggregate figure of 4.1 percent. The communities with low vacancy rates veritably ring the regional core, which has a higher vacancy rate. Low vacancy rates typically indicate pressure on a given submarket--people want/choose to live in these areas, so housing is at a premium. In short, these are sellers' markets. The pattern of low vacancies suggests that the rental market in the bulk of the SMSA is not responding to demand; more housing could be built and quickly occupied in a substantial number of communities.

Figure 6 illustrates the distribution of non-elderly subsidized units by proportion of occupied rental units. Subsidy for housing increases access, especially for families with children, by decreasing the amount/proportion of a family's income required to pay for housing of adequate size and quality. Within the SMSA, as of December 1973, there were twenty-four communities with no completed subsidized housing (non-elderly). An additional fifteen had 2.5 percent or less, while fourteen more had 5.0 percent or less. Thus, some fifty-three communities had 5.0 percent or less of rental housing stock with subsidy. Here, percentages are somewhat deceptive in that many communities also have rather small rental housing stocks, hence a seemingly adequate proportion may translate into an actual number of units that greatly limits access. Not surprisingly, core cities have the greatest proportion of subsidized housing, although FHA and MHFA moderate income developments have spread through other sections of the region, notably along Route 9 and in the area around Lynn.

Perhaps the best that can be said of the Boston situation is that price and access factors do not fit a neat, concentric pattern. Even so, the identifiable price and access factors/patterns operate to centralize low and moderate income families. Localities that choose to emphasize owner-occupied housing and to discourage rental and/or subsidized housing limit access. As a higher proportion of non-white families tend to be in the low to moderate income category, this means that minorities have fewer choices and less access to housing outside the core areas; thus they are centralized. Excepting transfer programs (for example, METCO) or busing, the racial and ethnic populations of schools reflect the residential settlement patterns of the surrounding communities. Therefore, it is not surprising to find that the bulk of school systems in the SMSA are, by MPP standards, racially isolated. (See Figure 7.)

POLICY APPROACHES

In reviewing the present situation in the Boston SMSA, it is apparent that the housing system is not working in a fashion that creates a dispersed settlement pattern of minorities throughout the region. A substantial proportion of the region's minority population remains in the traditional points of concentration, specifically the regional center (Boston/Cambridge) and subcenters (such as Lynn). This is the case for both rental and owner-occupied elements of the housing market. There is some evidence of a marginal increase in dispersion, shown for example in the generally higher proportion of total population in the various communities. (See Figures 1 and 7)


Metropolitan Planning Project Communities
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MIDDLETON
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NORTH READING
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LYNNFIELD
PEABODY
SALEM
MARBLEHEAD
SWAMPSCOTT
BEDFORD
BURLINGTON
WOBURN
WAKEFIELD
SAUGUS
LYNN
STONEHAM
WINCHESTER
MELROSE
CONCORD
LEXINGTON
MALDEN
NAHANT
LINCOLN
ARLINGTON
MEDFORD
EVERETT
CHELSEA
REVERE
BELMONT
SOMERVILLE
WALTHAM
CAMBRIDGE
WINTHROP
SUDBURY
WATERTOWN
WAYLAND
WESTON
NEWTON
BROOKLINE
FRAMINGHAM
WELLESLEY
BOSTON
HULL
NATICK
NEEDHAM
ASHLAND
DEDHAM
QUINCY
COHASSET
SHERBORN
DOVER
MILTON
WESTWOOD
BRAINTREE
HINGHAM
SCITUATE
MEDFIELD
WEYMOUTH
NORWOOD
CANTON
RANDOLPH
NORWELL
MILLIS
HOLBROOK
WALPOLE
ROCKLAND
HANOVER
NORFOLK
SHARON
MARSHFIELD
PEMBROKE
DUXBURY

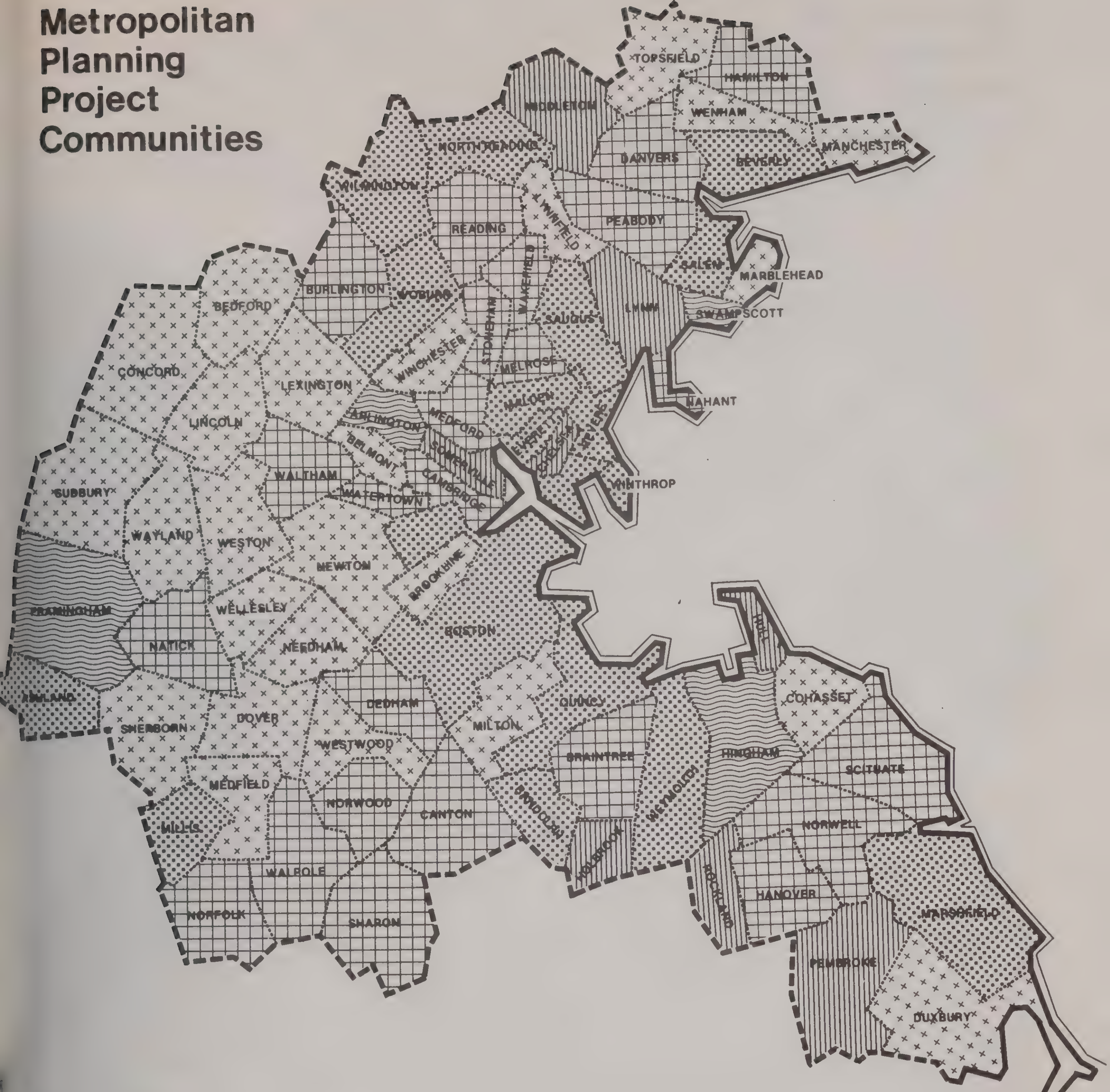
FIGURE 1

Proportion of Population which is Non-white: 1970

▥	0–.49	≋	2.00 – 5.99
░	.50–.99	⁘	6.00% or more
▦	1.00–1.99		

Source: MPP Support Research Table 35.

Metropolitan Planning Project Communities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SWAMPSCOTT
BEDFORD
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MELROSE
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LEXINGTON
NAHANT
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LINCOLN
ARLINGTON
MEDFORD
EVERETT
CHELSEA
REVERE
BELMONT
SOMERVILLE
SUDBURY
WALTHAM
CAMBRIDGE
WINTHROP
WATERTOWN
WAYLAND
WESTON
NEWTON
BROOKLINE
FRAMINGHAM
WELLESLEY
BOSTON
HULL
NATICK
NEEDHAM
ASHLAND
COHASSET
DEDHAM
QUINCY
SHERBORN
DOVER
MILTON
WESTWOOD
BRAINTREE
HINGHAM
SCITUATE
MEDFIELD
WEYMOUTH
RANDOLPH
NORWOOD
CANTON
MILLIS
NORWELL
HOLBROOK
WALPOLE
ROCKLAND
HANOVER
NORFOLK
SHARON
MARSHFIELD
PEMBROKE
DUXBURY

FIGURE 2

Variation from Boston SMSA Median Value of Owner Occupied Units: 1970

▥	-$4,501 or less	≋	+$1,501 to +4,500
▒	-$1,501 to -4,500	×	+$4,501 or more
▦	±$1,500		

Source: MPP Support Research Table 43.

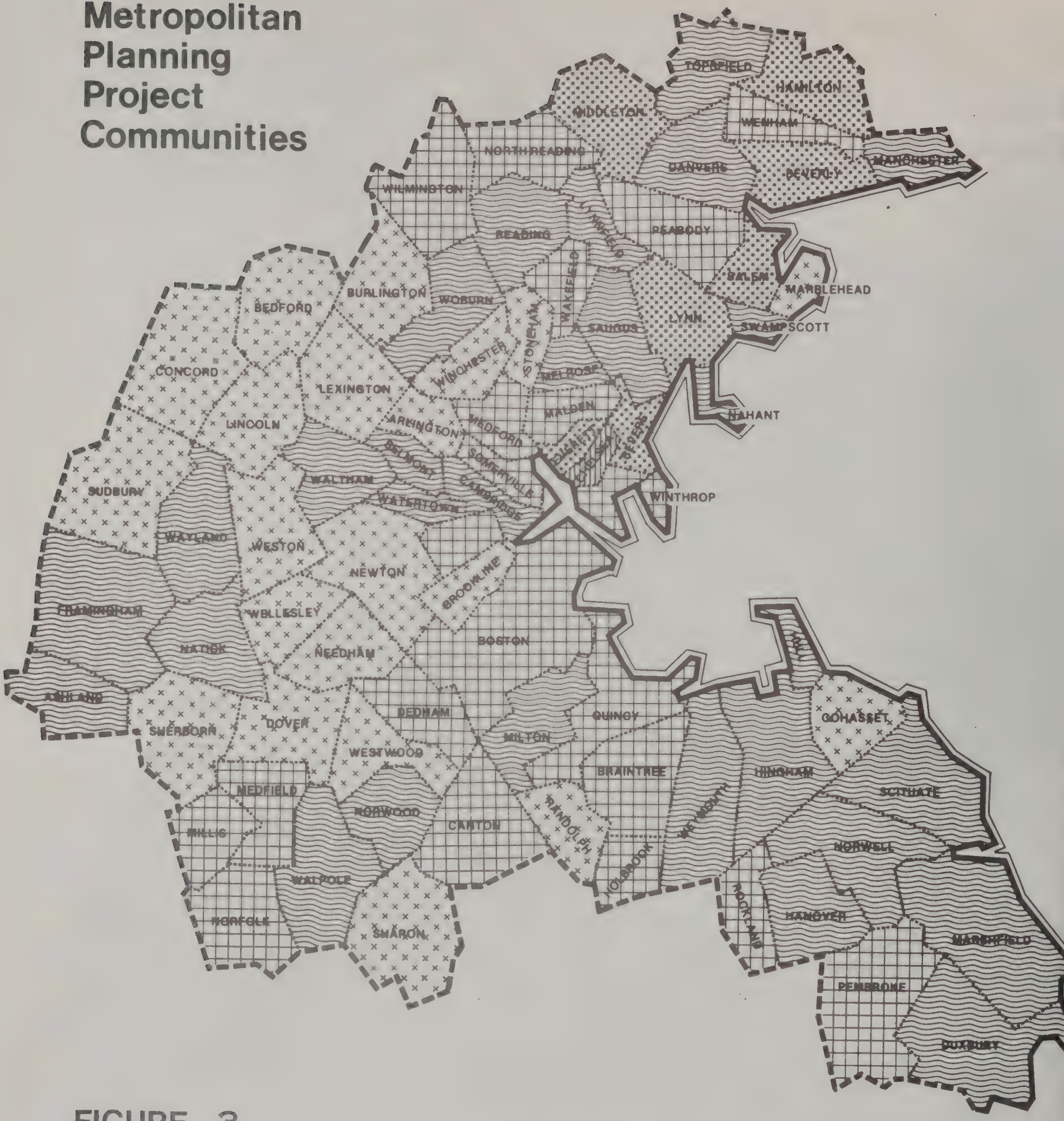
Metropolitan
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FIGURE 3

Variation from Boston SMSA Median Contract Rent: 1970

▥ -$31
▒ -$11 to -30
▦ ±$10
≋ +$11 to +30
⁙ +$31 or more

Source: MPP Support Research Table 43.

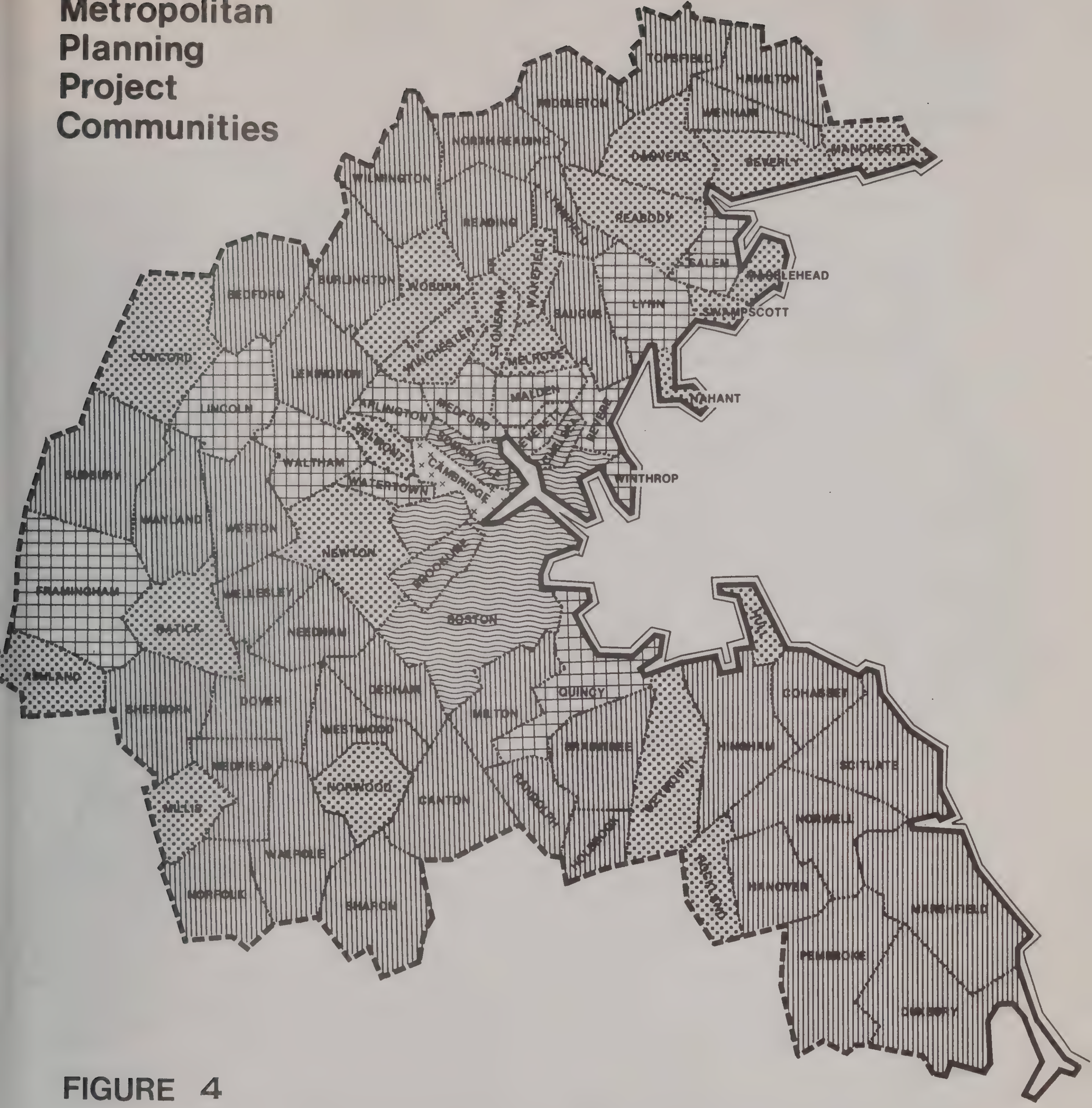
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FIGURE 4

Proportion of Occupied Housing which is Renter Occupied: 1970

▥ 0–20.0
░ 20.1–40.0
▦ 40.1–60.0
≡ 60.1–80.0
⁘ 80.1% or more

Source: MPP Support Research Table 43.

Metropolitan Planning Project Communities

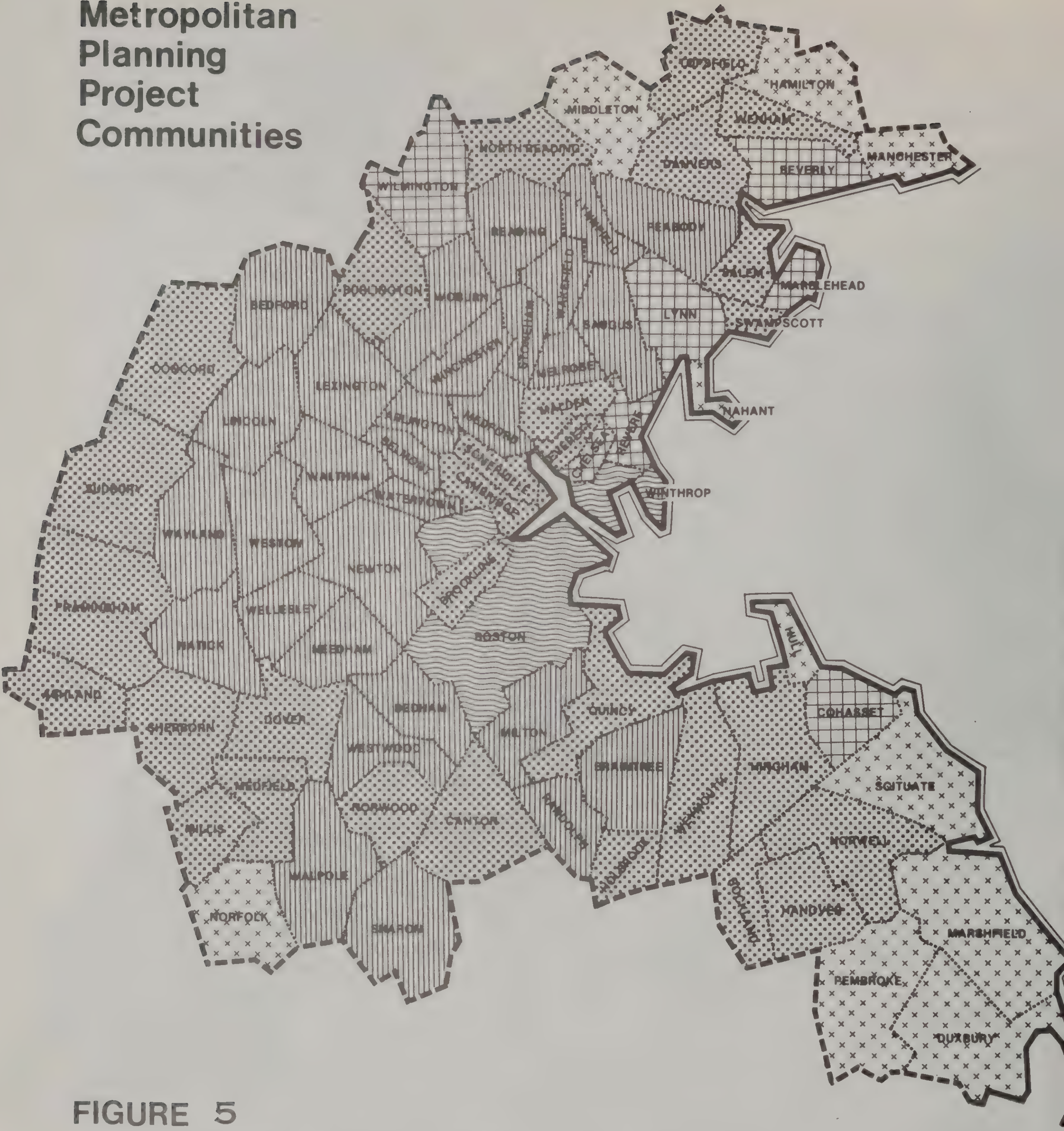
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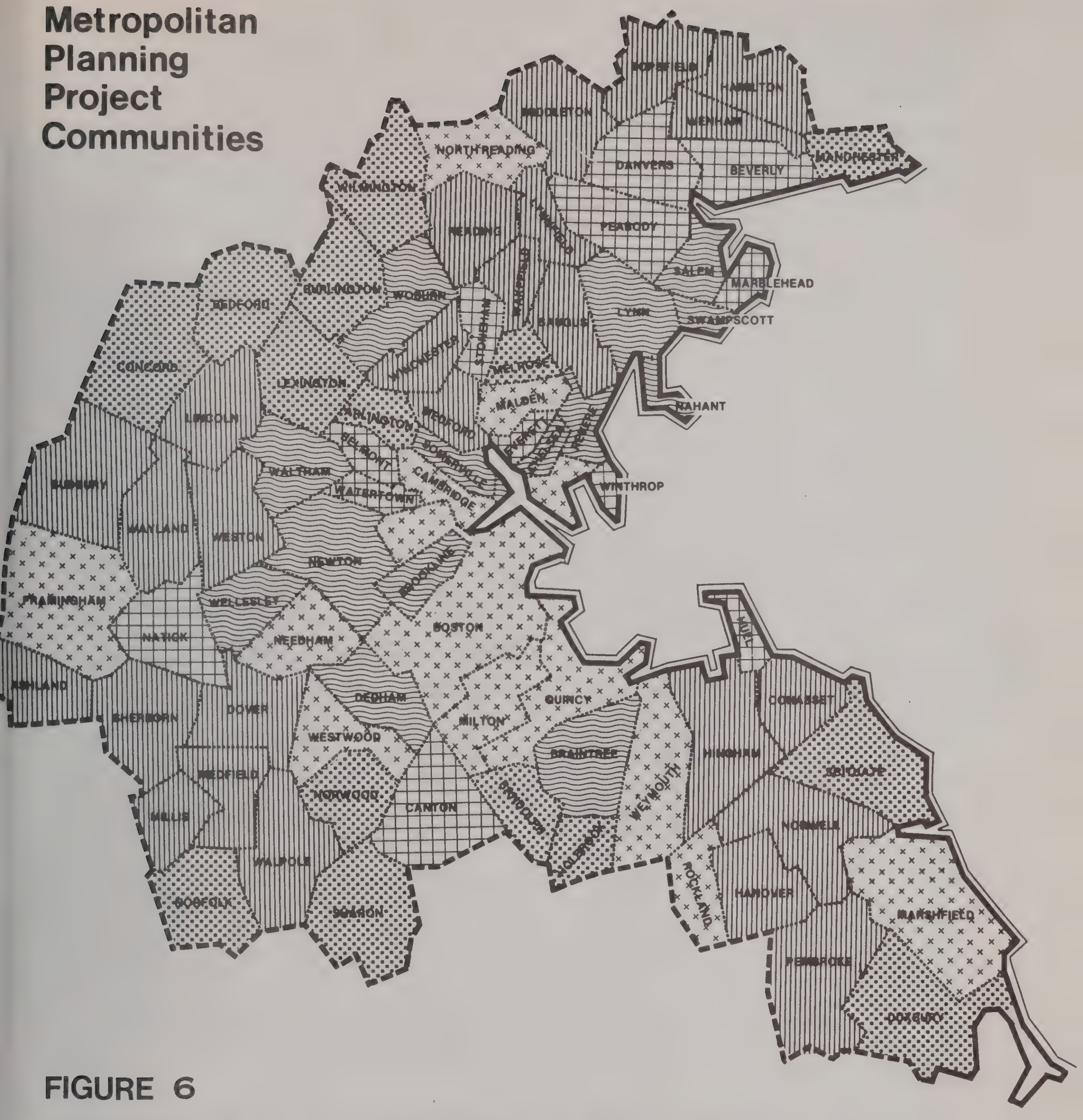
FIGURE 5

Proportion of Housing which is Vacant: 1970

▥ 0–20.0
░ 20.1–40.0
▦ 40.1–60.0
≋ 60.1–80.0
× 80.1% or more

Source: MPP Support Research Table 43.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MARSHFIELD
PEMBROKE
DUXBURY

FIGURE 6

Completed Non-elderly Subsidized Housing Units as a Proportion of all Renter Occupied Units

▥ 0
░ 0.1–2.5
▦ 2.6–5.0
≋ 5.1–10.0
⁘ 10.1% or more

Source: MPP Support Research Tables 43 and 46.

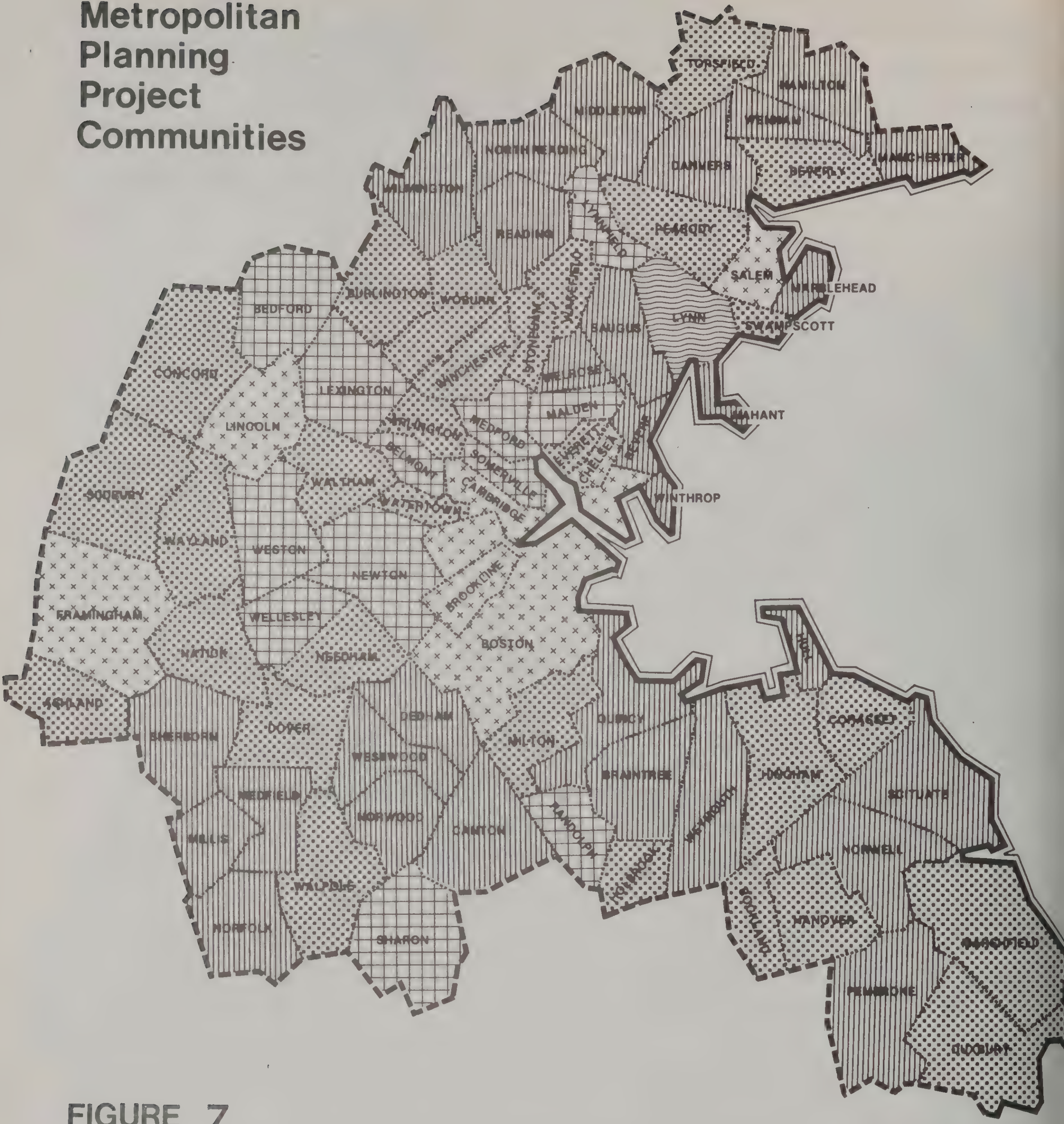
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FIGURE 7

Proportion of Public School Enrollment which is Non-white: 1973-74

▥ 0–.9
▒ 1.0–2.4
▦ 2.5–5.0
≋ 5.1–7.4
× 7.5% or more

Source: MPP Support Research Table 9.

While education and housing are parallel systems, rather than networks having mutually determinative/causal effects, the probability of decreasing racial and ethnic isolation among school age children will be enhanced if the housing system operates in a manner which increases the potential for unfettered housing choices by minorities. In most cases, opening the housing market for easier access will occur through actions and decisions that take place outside the education system. This fact applies to actions taken on an aggregate metropolitan basis or those made at the community level.

There are three levels of public decision-making at which action can usefully be taken--federal, state, and local.

FEDERAL

Federal legislation relating to open housing has been on the books for several years as have Executive Orders and related administrative directives. The legal basis for freedom of residential choice is well-established. However, federal initiatives to facilitate improved price and access conditions in housing have been substantially curtailed since the housing moratorium of January 1973. Section 235 and 236 mortgage subsidy programs, together with predecessor programs, have been the backbone of federal efforts at the moderate income level, while public housing and rent supplement/leased housing programs have been federally funded efforts aimed at the low-income group. Substantial cutbacks at both levels have severely limited the capability of states, regions, and localities to significantly change the kinds of housing available to lower income people. This freeze on housing activity has limited the ability of interested localities to move forward especially on new construction, while it has served as justification for continued procrastination for communities disinclined to provide housing options in this category. Alternative federal programs--probably housing assistance--are not yet operative, and it is too early to assess the impact of the recently enacted omnibus Housing and Community Development Act of 1973.

Since the federal role in housing can be characterized primarily as "table-setting," the most needed federal action is the development of a policy set, based on legislation and current goals, which will enable states and communities to make decisions with a clear understanding of federal priorities and available resources in the housing area. Be it a construction or cost assistance strategy (or some combination thereof), it is crucial that the federal policymakers adopt and support a carefully considered housing strategy followed by the provision of appropriate implementation opportunities.

STATE

The Commonwealth of Massachusetts has been a national leader in housing and in providing governmental direction and support for equal access in housing. The Massachusetts Commission Against Discrimination has an active program in the housing area, while the various state mortgage subsidy and assistance programs--administered by the Department of Community Affairs (DCA)--combined with the activities of the Massachusetts Housing Finance Agency (MHFA), provide the state with an impressive capacity to aid and encourage housing development/improvement which will increase access opportunities throughout the state. Further, Chapter 774, the so-called "Anti-Snob Zoning Law," is a means of applying direct public control over cities and towns reluctant to carry a fair share of the responsibility for developing housing for low and moderate income persons and families. The capacity of the state's regional planning commissions (for the Boston SMSA, it is the Metropolitan Area Planning Council--MAPC) to provide direction for public activity in the housing market is substantially enhanced by these implementation tools which are available to agencies in this state.

Despite this generally desirable situation, there exists in the SMSA a pattern of uneven opportunity for minorities to choose their housing. At the state/regional level, the various related agencies should cooperatively conduct an intensive on-going study of present and anticipated situations in the housing market to determine appropriate actions for public intervention. Such efforts would include, though not be limited to, the elimination of racial and ethnic isolation. For example, MHFA could conduct market studies on the feasibility of financing housing developments in the several communities with low vacancy rates, low proportions of rental housing, and/or low proportions of non-white population. Selective decision-making by MHFA could significantly open housing submarkets in areas now apparently shut off. For example, the twenty-four communities without completed non-elderly subsidized housing would be prime development prospects. Similarly, MAPC could aggressively support the generation of a plan providing for the equitable sharing of low and moderate income housing by towns and cities in the region--an action now under study. DCA could link the various housing and other community development grants so that there would be incentives to communities for constructing housing for those with low and moderate incomes. The various state-level resource allocation decisions (by DCA as well as by other agencies) could be keyed to realizing this policy through penalties, that is curtailed appropriations or no appropriations at all, assessed against communities not meeting fair share policies.

LOCAL

Localities can significantly facilitate provision of low and moderate income housing by positive decisions in areas such as:

--zoning, to permit and encourage multifamily housing.

--provision of infrastructure, through construction of water and sewer lines, roads, street lights, and the like, to efficiently serve new development.

--provision of public facilities--schools, fire stations, recreation areas, libraries, and so on--to serve new development.

--property tax, to establish a favorable and stable tax arrangement which is possible, for example, under the provisions of Chapter 121A of the Laws of Massachusetts.

--provision of city services--efficient garbage pickup, street-cleaning, police protection, and the like.

--creation of local housing authorities to provide the opportunity for the development of family housing.

The variegated distribution of subsidized housing, minority population, and rental units can be explained, in large part, by the negative decisions taken by many communities in one or more of the areas listed above. Changes in residential settlement patterns will be ultimately manifested in towns and cities; they will occur only if localities take the initiative to ensure that positive decisions are made with regard for the variables most significantly affecting housing choice and access.

In addition to the general decisions made by local public officials, there are some aspects more specifically related to the educational system and its decision makers. Though it may be pointing out the obvious, it is the case that school officials, such as superintendents of schools, are community influencers.

Thus, their stance on many aspects/issues concerning the housing market can be of importance--support for local plans to construct subsidized housing, for instance. This importance of school officials' positions also applies in that school expenses consume a large proportion of the budgets of cities and towns. Changes in the school budget affect the property tax, influencing, in this indirect fashion, the nature of the housing market in individual communities.

Beyond this situation of generalized indirect influence, school systems should have staff capacity to monitor the local housing market and to translate changes in housing patterns into the educational policy and program changes needed to meet positive learning objectives. Such a staff should analyze data gathered in response to the following sorts of questions:

--By income, race, ethnic group, age, family status, and the like, who is in the housing market? What are the changes that have occurred over time? What are the anticipated/projected changes?

--What are the components of inventory change (unit size, percentage of rental units, standard structure type, cost, and so on) including projections over various future times? What are the modification in local, state, and federal policies which will affect the local housing market? These include zoning, infrastructure, city sewers, new subsidy programs, cost of mortgage money, and other such variables.

Such data are available from a number of sources. Detailed information of this sort will soon be available on a town-by-town basis through MHFA. While data analysis is certainly not a total solution, it does provide a sturdy base for developing educational policies and programs aimed at the elimination of racial and ethnic isolation.

It is probably worth repeating that the housing and educational systems are parallel networks which affect/influence each other but which do not work in tandem. Obviously, the population of the public schools reflects the distribution of population in the communities so that it is almost painfully simplistic to suggest that the most efficient and effective way to effect change in the school population is through concentrated efforts aimed at achieving racial and ethnic balances in the community. However, providing rental, subsidized, and other such housing opens neighborhoods to minority groups and is certainly one step toward achieving the goal of eliminating isolation occurring along racial and ethnic lines of Boston's school age children.

Part Three

OPTIONS

CHAPTER VII THE FORMULA PLAN

CHAPTER VII

THE FORMULA PLAN

Introduction

This chapter applies the mandated formula for the elimination of minority group student isolation in the Boston SMSA, and reviews that application against the feasibility criteria discussed in the next section. The Formula Plan simulation is itself essentially a numerical distribution of minority and non-minority students across all districts in the SMSA, unrefined in terms of educational, transportation, social, cultural or political realities. It is those realities which condition its ultimate feasibility.

The Formula Plan is the simulation of the application of the formula in order to meet the minimum standards set forth by the Emergency School Aid Act and its guidelines. According to the guidelines, a proportion of at least one half of the total percent of the minority group student enrollment in the SMSA must be enrolled in each SMSA public school; no public school shall have a minority group student enrollment of greater than 50%. For 1972-73 this means a maximum of 49.9% and a minimum of 4.2% minority group students. In 1982-83, this is projected to mean a maximum of 49.9% and a minimum of 5.4% minority group students. Application of the formula, in order to meet these minimum standards, would have the effect of involving 20,890 students in 1972-73 and 33,154 students in 1982-83.

There are several caveats which ought to be recognized in reviewing the feasibility of the Formula Plan. First, the plan is stated in terms of minority isolation in public schools in the Boston SMSA. Beyond the constraints imposed by data, this conceptual constraint is important. As is evident in other parts of this report, MPP is concerned with minority isolation, but, more significantly, with the isolation of all groups - minority and majority, urban and suburban - in schools in the SMSA. The isolation of racial minorities is typical of the isolation of ethnic minorities and geographic or cultural minorities. The legal mandate specifies the racial minorities, and the Formula Plan is a response to that mandate.

The second constraint reflects the planning process described in Part Two: THE FRAMEWORK FOR ACTION, Chapter V "The Planning Process." In reviewing the formula's feasibility, this chapter screens a range of alternative variables which could not easily be inserted into the formula. Furthermore, the planning process has simulated yet other kinds of alternatives. Rather than a formula mechanically applied, the planning process has highlighted programmatic mechanisms by which the goals of the plan may be met. Such an approach has been consistent from the initial planning of the Proposal, and is described in detail in Part Three: OPTIONS, Chapter VIII "The Alternative Plan."

The mandate is further constrained by the legislated limits in the ESAA regulations. It should be recognized that those limits have not had significant court tests, and they reflect only the ESAA legislation. It is only in the ESAA, and in the minimal performance mandate required by the MPP contract award, that the metropolitan scope and specific numerical ratios have any legal status. Thus, the formula presented here is specifically not to be seen as a means of responding to federal court orders now in force in Boston. Nor could it be seen as a metropolitan plan. Nor is the formula a concensual result of collaborative planning. Such cautions are presented in order to clarify the very specific intent of this chapter: to respond to the contract grant mandate.

Criteria of Feasibility

The following criteria summarize the proposal's underlying premises and reflect the expressed and implied mandate, both of the Governing Board and of the Congressional framework. There are four fundamental premises.

First, the Metropolitan Planning Project's proposal states that "The chief criterion in evaluating any metropolitan desegregation plan will be that it holds out promises for improving the quality of education of all the participating students . . ." Such a criterion reflects more than the political feasibility outlined in Part One. It also conditions the operating system of any project or experiment supported by MPP resources, either in staff, funds, or planning meetings. The universal objective of improving quality for all participants also reflects the concern with consensual and voluntary programming.

Second, reduction of racial and ethnic isolation can best occur through innovative educational programming. As a criterion, this principle operates to stimulate a wide range of innovations. Among cooperating districts, what is innovative in one partner may be traditional in another. Thus, the criterion reflects an intended "ripple effect" of innovation: innovation itself may remain undefined on the large scale, but innovative education gains definition and form from the interaction of collaborating groups. Finally, it should be noted that innovation for its own sake is not the criterion, nor the principle which is here expressed. Innovation in the context of cooperative ventures to reduce minority isolation and improve the quality of education is the principle. The criterion is intrinsic to the entire planning program, and it cannot be extracted - it cannot be an operating principle on its own - without sacrificing the entire system of other principles.

Third, collaboration among school districts must be such as to eliminate racial and ethnic student isolation, If, through collaboration, minority isolation may be reduced in enough districts, racial isolation will be eliminated in the Boston SMSA as a whole. Furthermore, this criterion reflects the need to stimulate collaborative enterprises which establish strong links among urban and suburban districts, including all the urban districts in the SMSA as central and unavoidable partners. Of course, Boston is the largest urban district, but Chelsea, Somerville, Cambridge, and Lynn are virtually as urban, with similar resources and needs.

The fourth and last premise is that the governance of these collaboratives must include decision making power which is shared with all participants in the educational process. This means, again, an operating theme of voluntarism and consensual decision making. It does not mean that everyone shares in every decision. A joint project between two districts does not need the active participation of all other districts in the SMSA, just as a project between two schools in two districts does not need the total participation of all the other schools. Yet, as the decision making power is narrowed to those who participate in joint projects, it is also broadened to include all of those who in fact do participate. Such a principle at once reflects the legislated intent of voluntarism, that is to operate without court order, and the implied intent of the proposal, that is to operate with all individuals in any given group. Even this level of participation is not necessarily as universal as some might infer. Shared decision making in any given project means; however, that every participant - parent, student, teacher, administrator - must be able to participate in some decisions. It does not mean that all participants must participate in all decisions.

These basic principles delimit a direction for planning and a scope of activity. They do not, however, express the total range of operating guidelines, since they only give normative measures of feasibility. Specific measurable criteria which are both technical and educational in origin include:

1. a reasonable time/distance ratio for student travel dependent upon the age of the student and the length of the program time;

2. an energy-efficient mode of travel, given energy resources in the region and the status of rapid transit;

3. relatively adjacent communities, within the service area of the State Department of Education's Regional Education Centers;

4. a match of urban/suburban partners which reflects mutual needs.

In matching urban and suburban partners, a range of variables would be used in weighting judgements of feasibility. Such data as per pupil expenditures, percent of municipal taxes devoted to education and the converse of that figure, percent of school funds provided by local sources; extent of METCO enrollment or a background of METCO participation; public school ethnic enrollment ratios; and participation in other metropolitan collaboratives including membership status in MPP are typical educational characteristics. Other education related characteristics which are equally relevant include: population by race and Spanish language; median family income; percent of the population in professional or nonfarm managerial categories; grade level achievement in adult population; equalized property valuation; mass transit services and travel time to Boston from suburban communities and between suburban communities. Each variable gives some insight into the potential collaboration of schools and districts. Other, less objective educational criteria include: an assessment of educational quality, innovative educational programming and the degree to which the programs actually reduce racial and ethnic isolation.

The criteria for a feasible collaborative venture are guidelines, suggesting how feasible certain matches of resources and needs may, in fact, be now or may become in the future. Given the changeable quality of population in the region, given the projected changes in public transit and other public services, given the expected differences between and among schools even in similar districts, such criteria only highlight probable success in meeting the overriding MPP goals. It is in this light that these criteria are useful. First, as directions for community-based, school-based, and district-based planning, they serve to point out the most useful strategies by which successful plans may become operational. In this way, the criteria express the leadership position of the Governing Board and Advisory Committee. The second direction reflects the history and context of that leadership, for the criteria also summarizes and centralizes the context and mandate within which MPP is constrained.

Formula Plan Definition

In accordance with the Emergency School Aid Assistance Act of 1972, its regulations, and our federal contract, the Metropolitan Planning Project was required to develop a desegregation plan based on a formula stated in the Act. MPP devised a numerical simulation to test the feasibility of the formula to eliminate minority group isolation in the public elementary and secondary schools of the Boston metropolitan area. In accordance with the Act and its regulations, the following definitions were adopted:

1. Elimination of minority group isolation - No school shall have a 50% or greater minority membership or a student body containing less than one half the percentage of minority group public school students in the metropolitan area. In 1972-73 this meant a maximum of 49.9% and a minimum of 4.2% minority group students. In 1982-83 this means a maximum of 49.9% and a minimum of 5.4% minority group students.

2. Public schools within the Boston metropolitan area - All those schools whose total student body comes from the communities which comprise the Boston Standard Metropolitan Statistical Area as of the 1970 Census.

3. Minority group students - Students who are members of the following groups: Afro-American, Native-American, Spanish Surnamed American (including persons of Mexican, Puerto Rican, Cuban or Spanish origin or ancestry), Portuguese, Oriental, Alaskan natives, Hawaiian natives, and others who do not have an equal opportunity as a result of language barriers and cultural differences.

Data Constraints

Ideally, a numerical simulation should have been done for 1972-73 and 1982-83 on a school by school basis for total majority and minority group students. This would determine what effects such a plan would have on the future situation, as projected under current conditions.

Such a simulated plan would include all schools in the following school districts:

Arlington
Ashland
Bedford
Belmont
Beverly
Boston
Braintree
Brookline
Burlington
Cambridge
Canton
Chelsea
Cohasset
Concord
Danvers
Dedham
Dover
Duxbury
Everett
Framingham
Hamilton
Hanover
Hingham
Holbrook
Hull
Lexington
Lincoln
Lynn
Lynnfield

Malden
Manchester
Marblehead
Marshfield
Medfield
Medford
Melrose
Middleton
Millis
Milton
Nahant
Natick
Needham
Newton
Norfolk
No. Reading
Norwell
Norwood
Peabody
Pembroke
Quincy
Randolph
Reading
Revere
Rockland
Salem
Saugus
Scituate
Sharon

Sherborn
Somerville
Stoneham
Sudbury
Swampscott
Topsfield
Wakefield
Walpole
Waltham
Watertown
Wayland
Wellesley
Wenham
Weston
Westwood
Weymouth
Wilmington
Winchester
Winthrop
Woburn

Regional School Districts:

Dover-Sherborn
Hamilton-Wenham
Lincoln-Sudbury
Experimental School System of the Comm. of Mass.
North Shore Reg. Voc. Tech.

However, this type of simulation was not possible for several reasons:

1. Comparative data were not available for all schools on a majority/minority basis, so white/non-white figures were substituted as approximations;

2. Since the 1982-83 enrollment must be projected, it could only be on a school district basis given the very small number of current non-white population in most schools outside of Boston;

3. Since the 1982-83 projection was to be done on a school district basis, it was decided that the 1972-73 simulation should be done on a school district basis as well as a by-school basis, for reasons of comparability;

4. Aggregate data for 1972-73 were not available for the following 5 school districts: Cohasset, Waltham, Experimental School System of the Commonwealth of Massachusetts, North Shore Regional Vocational Technical School, and Dover-Sherborn; and enrollment projections for these districts for 1982-83 are, thus, also not available;

5. In order to obtain the most valid data, different sources of information were used for individual school figures and school district figures. Thus, the white/non-white figures for each district may not be equal to the sum of the white/non-white figures for each school in that district. The individual school figures were obtained from Racial Census, 1972-73, Massachusetts State Department of Education. The school district figures were obtained from Superintendents' Reports to the State Department of Education, 1972-73.

Formula Application: 1972-73 and 1982-83

In spite of all the modifications which had to be made because of data problems, numerical simulations for the elimination of non-white student isolation were run on a school basis for 1972-73 and a school district basis for 1972-73 and 1982-83. The simulation was run with 4.2% non-white student enrollment as a lower limit. This was determined by the formula of figuring 50% or half of the percentage of non-white students in the Boston SMSA schools in 1972-73. The upper limit was 49.9% non-white enrollment. For 1982-83 a similar procedure was followed with 5.4% non-white students serving as a lower limit and 49.9% non-white students serving as an upper limit. The 5.4% was used because it was 50% or half of the percentage of the non-white students in the Boston SMSA as forecast for the 1982-83 school year.

Because of time and monetary cost factors, the school district figures ought to be analyzed before dealing with the individual school figures. The problem with such a district-wide analysis is the assumption of intra-district individual school balance. This, of course, is not reality.

In order to eliminate the isolation of minority students, these students would have to be transferred to suburban districts. It can be assumed that the minority group students would, most likely, come from Boston because:

1. Boston has the largest percentage of non-white students in the SMSA;

2. Other districts with presently non-isolated schools would become racially isolated if students transferred from their schools to other suburban districts;

3. Many of the presently counted minority group students in non-Boston districts are from Boston and attend these suburban schools through the METCO program;

4. Outside of Boston, in 1973-74, there exists only 2 schools with a minority group population of greater than 50%, in Boston 60 such schools exist.

In order to achieve this new configuration, the number of students bussed from Boston to any particular suburb would be equal to the number of minority students added to that district's enrollment. The number of white students subtracted from a suburban district's enrollment would be equal to the number of students bussed from that suburb to Boston. (see Tables VII - 1 and VII - 2.)

If such a transferring of students were to take place in a 1972-73 situation, where all non-white sutdents were to come from Boston and all white students were to be sent to Boston, the new configuration would be as presented in Tables VII - 3 and VII - 4. For 1982-83 a similar procedure was followed with 5.4% non-white students serving as a lower limit and 49.9% non-white students serving as an upper limit. Tables VII - 5 and VII - 6 show the changes in district enrollments which would have to be made in order to eliminate non-white student isolation in 1982-83.

If, in 1982-83, all non-white students were to come from Boston and all white students were to be sent to Boston, the new configuration would be as presented in Tables VII - 7 and VII - 8. A numerical redistribution of students on an individual school basis would require greater transferring of students and more extensive bussing. The following sections evaluate the feasibility of the district level simulation in terms of the criteria established earlier.

METROPOLITAN PLANNING PROJECT TABLE VII - 1

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1972-73

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Arlington	258 non-white	258 white
Ashland	55 non-white	55 white
Bedford	73 non-white	73 white
Belmont	76 non-white	76 white
Beverly	289 non-white	289 white
Boston	0 non-white	0 white
Braintree	328 non-white	328 white
Brookline	0 non-white	0 white
Burlington	221 non-white	221 white
Cambridge	0 non-white	0 white
Canton	134 non-white	134 white
Chelsea	19 non-white	19 white
Cohasset	N.A.*	N.A.*
Concord	65 non-white	65 white
Danvers	223 non-white	223 white
Dedham	251 non-white	251 white
Dover	13 non-white	13 white
Duxbury	32 non-white	32 white

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1972-73

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Everett	197 non-white	197 white
Framingham	224 non-white	224 white
Hamilton	51 non-white	51 white
Hanover	111 non-white	111 white
Hingham	156 non-white	156 white
Holbrook	47 non-white	47 white
Hull	102 non-white	102 white
Lexington	0 non-white	0 white
Lincoln	0 non-white	0 white
Lynn	0 non-white	0 white
Lynnfield	103 non-white	103 white
Malden	102 non-white	102 white
Manchester	51 non-white	51 white
Marblehead	149 non-white	149 white
Marshfield	157 non-white	157 white
Medfield	107 non-white	107 white
Medford	7 non-white	7 white
Melrose	260 non-white	260 white

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1972-73

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Middleton	25 non-white	25 white
Millis	68 non-white	68 white
Milton	149 non-white	149 white
Nahant	28 non-white	28 white
Natick	184 non-white	184 white
Needham	210 non-white	210 white
Newton	39 non-white	39 white
Norfolk	28 non-white	28 white
No. Reading	115 non-white	115 white
Norwell	104 non-white	104 white
Norwood	275 non-white	275 white
Peabody	367 non-white	367 white
Pembroke	65 non-white	65 white
Quincy	528 non-white	528 white
Randolph	160 non-white	160 white
Reading	212 non-white	212 white
Revere	304 non-white	304 white
Rockland	99 non-white	99 white

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1972-73

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Salem	219 non-white	219 white
Saugus	221 non-white	221 white
Scituate	195 non-white	195 white
Sharon	0 non-white	0 white
Sherborn	24 non-white	24 white
Somerville	284 non-white	284 white
Stoneham	168 non-white	168 white
Sudbury	103 non-white	103 white
Swampscott	87 non-white	87 white
Topsfield	37 non-white	37 white
Wakefield	205 non-white	205 white
Walpole	153 non-white	153 white
Waltham	N.A.*	N.A.*
Watertown	208 non-white	208 white
Wayland	85 non-white	85 white
Wellesley	91 non-white	91 white
Wenham	21 non-white	21 white
Weston	10 non-white	10 white

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 1 -- continued/5

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1972-73

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Westwood	121 non-white	121 white
Weymouth	504 non-white	504 white
Wilmington	205 non-white	205 white
Winchester	145 non-white	145 white
Winthrop	160 non-white	160 white
Woburn	281 non-white	281 white
Dover-Sherborn	N.A.*	N.A.*
Hamilton-Wenham	26 non-white	26 white
Lincoln-Sudbury	26 non-white	26 white
Experimental School System Comm. of Mass.	N.A.*	N.A.*
North Shore Regional Vocational Technical School	N.A.*	N.A.*

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 2

SMSA SUMMARY OF THE TRANSFERS NECESSARY TO MEET ESAA FORMULA
With All Non-White Students Bussed From Boston, and
All White Students To Be Bussed To Boston: 1972-73

Total	# Students
Total Students Involved	20,890
Total Non-white Students Added	10,445
Total White Students Subtracted	10,455

Note: This is slightly underestimated because it does not take into account the school districts of Cohasset and Waltham.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 3

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1972-73

School District	# White	# Non-white	% Non-white
Arlington	8,803	386	4.2
Ashland	2,257	99	4.2
Bedford	3,845	169	4.2
Belmont	4,736	208	4.2
Beverly	7,646	335	4.2
Boston	71,436	24,713	25.7
Braintree	8,855	388	4.2
Brookline	5,721	610	9.6
Burlington	7,043	309	4.2
Cambridge	8,035	1,740	17.8
Canton	3,959	174	4.2
Chelsea	4,498	197	4.2
Cohasset	N.A.*	N.A.*	N.A.*
Concord	2,995	131	4.2
Danvers	5,310	233	4.2
Dedham	5,994	263	4.2
Dover	566	25	4.2

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 3 -- continued/2

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS
To Be Bussed From Boston, and All White Students
To Be Bussed To Boston: 1972-73

School District	# White	# Non-white	% Non-white
Duxbury	2,684	118	4.2
Everett	6,818	299	4.2
Framingham	14,827	650	4.2
Hamilton	1,216	53	4.2
Hanover	3,159	139	4.2
Hingham	5,207	228	4.2
Holbrook	2,635	115	4.2
Hull	2,966	130	4.2
Lexington	8,693	396	4.4
Lincoln	1,664	134	7.5
Lynn	14,565	956	6.2
Lynnfield	2,885	127	4.2
Malden	10,027	440	4.2
Manchester	1,213	53	4.2
Marblehead	4,266	187	4.2
Marshfield	4,715	207	4.2
Medfield	2,664	117	4.2

Note: *N.A. indicates data is not available.
Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 3 -- continued/3

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS
To Be Bussed From Boston, and All White Students
To Be Bussed To Boston: 1972-73

School District	# White	# Non-white	% Non-white
Medford	10,924	479	4.2
Melrose	6,745	296	4.2
Middleton	614	27	4.2
Millis	1,688	74	4.2
Milton	4,263	187	4.2
Nahant	641	28	4.2
Natick	8,020	352	4.2
Needham	7,214	316	4.2
Newton	16,312	715	4.2
Norfolk	631	28	4.2
No. Reading	3,314	145	4.2
Norwell	2,555	112	4.2
Norwood	6,859	301	4.2
Peabody	10,746	471	4.2
Pembroke	1,839	81	4.2
Quincy	15,796	692	4.2
Randolph	6,668	292	4.2

Note: *N.A. indicates data is not available.
Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1972-73

School District	# White	# Non-white	% Non-white
Reading	5,653	248	4.2
Revere	7,062	310	4.2
Rockland	3,850	169	4.2
Salem	6,764	297	4.2
Saugus	5,761	253	4.2
Scituate	5,273	231	4.2
Sharon	3,509	152	4.2
Sherborn	588	26	4.2
Somerville	12,546	550	4.2
Stoneham	4,239	186	4.2
Sudbury	3,400	149	4.2
Swampscott	2,943	129	4.2
Topsfield	897	39	4.2
Wakefield	5,121	225	4.2
Walpole	4,592	201	4.2
Waltham	N.A.*	N.A.*	N.A.*
Watertown	5,844	256	4.2
Wayland	3,716	163	4.2

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1972-73

School District	# White	# Non-white	% Non-white
Wellesley	5,767	253	4.2
Wenham	571	25	4.2
Weston	2,776	122	4.2
Westwood	3,484	153	4.2
Weymouth	13,591	596	4.2
Wilmington	4,996	219	4.2
Winchester	5,275	231	4.2
Winthrop	3,702	162	4.2
Woburn	8,420	369	4.2
Dover-Sherborn	N.A.*	N.A.*	N.A.*
Hamilton-Wenham	866	38	4.2
Lincoln-Sudbury	1,872	82	4.2
Experimental School System Comm. of Mass.	N.A.*	N.A.*	N.A.*
North Shore Regional Vocational Technical School	N.A.*	N.A.*	N.A.*

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 4

SMSA SUMMARY OF THE TRANSFERS NECESSARY TO MEET ESAA FORMULA WITH ALL NON-WHITE Students Bussed From Boston, and All White Students To Be Bussed To Boston: 1972-73

Total	# Students
Total Students to be Bussed	20,890
Total White Students to be Bussed to Boston	10,445
Total Non-white Students to be Bussed to Suburbs	10,445

Note: This is slightly underestimated because it does not take into account the school districts of Cohasset and Waltham.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 5

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1982-83

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Arlington	320 non-white	320 white
Ashland	62 non-white	62 white
Bedford	185 non-white	185 white
Belmont	169 non-white	169 white
Beverly	429 non-white	429 white
Boston	0 non-white	0 white
Braintree	483 non-white	483 white
Brookline	0 non-white	0 white
Burlington	598 non-white	598 white
Cambridge	0 non-white	0 white
Canton	245 non-white	245 white
Chelsea	0 non-white	0 white
Cohasset	N.A.*	N.A.*
Concord	26 non-white	26 white
Danvers	357 non-white	356 white
Dedham	431 non-white	432 white
Dover	4 non-white	4 white
Duxbury	125 non-white	124 white
Everett	313 non-white	313 white

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1982-83

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Framingham	339 non-white	339 white
Hamilton	67 non-white	67 white
Hanover	207 non-white	207 white
Hingham	277 non-white	277 white
Holbrook	14 non-white	14 white
Hull	192 non-white	192 white
Lexington	0 non-white	0 white
Lincoln	0 non-white	0 white
Lynn	0 non-white	0 white
Lynnfield	157 non-white	157 white
Malden	170 non-white	170 white
Manchester	90 non-white	90 white
Marblehead	177 non-white	177 white
Marshfield	361 non-white	362 white
Medfield	220 non-white	220 white
Medford	177 non-white	178 white
Melrose	367 non-white	366 white
Middleton	44 non-white	45 white
Millis	105 non-white	104 white

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1982-83

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Milton	190 non-white	191 white
Nahant	38 non-white	38 white
Natick	164 non-white	164 white
Needham	284 non-white	284 white
Newton	0 non-white	0 white
Norfolk	49 non-white	49 white
No. Reading	203 non-white	203 white
Norwell	218 non-white	218 white
Norwood	459 non-white	459 white
Peabody	628 non-white	628 white
Pembroke	157 non-white	158 white
Quincy	844 non-white	843 white
Randolph	283 non-white	283 white
Reading	364 non-white	365 white
Revere	457 non-white	457 white
Rockland	148 non-white	148 white
Salem	355 non-white	355 white
Saugus	351 non-white	351 white
Scituate	402 non-white	402 white

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1982-83

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Sharon	0 non-white	0 white
Sherborn	40 non-white	40 white
Somerville	290 non-white	289 white
Stoneham	285 non-white	285 white
Sudbury	204 non-white	204 white
Swampscott	49 non-white	48 white
Topsfield	60 non-white	60 white
Wakefield	227 non-white	227 white
Walpole	271 non-white	271 white
Waltham	N.A.*	N.A.*
Watertown	260 non-white	260 white
Wayland	169 non-white	169 white
Wellesley	0 non-white	0 white
Wenham	35 non-white	35 white
Weston	0 non-white	0 white
Westwood	265 non-white	265 white
Weymouth	808 non-white	808 white
Wilmington	350 non-white	350 white
Winchester	185 non-white	185 white

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

CHANGES IN SCHOOL DISTRICT ENROLLMENT NECESSARY TO MEET ESAA FORMULA: 1982-83

School District	To Be Added (Students to be received from another district)	To Be Subtracted (Students to be sent to another district)
Winthrop	246 non-white	245 white
Woburn	519 non-white	519 white
Dover-Sherborn	N.A.*	N.A.*
Hamilton-Wenham	31 non-white	31 white
Lincoln-Sudbury	33 non-white	33 white
Experimental School System Comm. of Mass.	N.A.*	N.A.*
North Shore Regional Vocational Technical School	N.A.*	N.A.*

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 6

SMSA SUMMARY OF TOTAL CHANGES IN ENROLLMENT NECESSARY TO MEET ESAA FORMULA With All Non-white Group Students Bussed From Boston, and All White Students To Be Bussed To Boston: 1982-83

Total	# Students
Total Students Involved	33,154
Total Non-white Students to be Added to Suburban School Districts	16,577
Total White Students to be Subtracted from Suburban School Districts	16,577

Note: This is slightly underestimated because it does not take into account the school districts of Cohasset and Waltham.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 7

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1982-83

School District	# White	# Non-white	% Non-white
Arlington	10,369	592	5.4
Ashland	2,622	150	5.4
Bedford	5,467	312	5.4
Belmont	7,870	449	5.4
Beverly	8,873	507	5.4
Boston	68,877	35,464	34.0
Braintree	10,869	620	5.4
Brookline	5,122	1,117	17.9
Burlington	13,467	769	5.4
Cambridge	6,568	1,666	20.2
Canton	5,506	314	5.4
Chelsea	4,075	347	7.8
Cohasset	N.A.*	N.A.*	N.A.*
Concord	4,145	237	5.4
Danvers	6,707	383	5.4
Dedham	7,845	448	5.4
Dover	575	33	5.4
Duxbury	4,192	239	5.4

Note: *N.A. indicates data is not available.
Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1982-83

School District	# White	# Non-white	% Non-white
Everett	6,472	369	5.4
Framingham	22,098	1,261	5.4
Hamilton	1,325	76	5.4
Hanover	4,870	278	5.4
Hingham	7,431	424	5.4
Holbrook	1,459	83	5.4
Hull	4,106	234	5.4
Lexington	11,033	866	7.3
Lincoln	396	318	44.5
Lynn	15,351	1,327	8.0
Lynnfield	3,747	214	5.4
Malden	11,044	630	5.4
Manchester	1,649	94	5.4
Marblehead	5,089	291	5.4
Marshfield	8,238	470	5.4
Medfield	4,247	242	5.4
Medford	11,967	683	5.4
Melrose	7,682	439	5.4

Note: *N.A. indicates data is not available.
Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS
To Be Bussed From Boston, and All White Students
To Be Bussed To Boston: 1982-83

School District	# White	# Non-white	% Non-white
Middleton	848	48	5.4
Millis	2,134	122	5.4
Milton	4,948	282	5.4
Nahant	671	38	5.4
Natick	8,693	496	5.4
Needham	8,812	503	5.4
Newton	15,146	1,259	7.7
Norfolk	865	49	5.4
No. Reading	4,427	253	5.4
Norwell	3,813	218	5.4
Norwood	8,859	506	5.4
Peabody	14,686	838	5.4
Pembroke	2,946	168	5.4
Quincy	17,874	1,020	5.4
Randolph	8,929	510	5.4
Reading	7,703	440	5.4
Revere	8,004	457	5.4
Rockland	4,959	283	5.4

Note: *N.A. indicates data is not available.
Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1982-83

School District	# White	# Non-white	% Non-white
Salem	8,519	486	5.4
Saugus	7,000	400	5.4
Scituate	7,048	402	5.4
Sharon	3,834	348	8.3
Sherborn	756	43	5.4
Somerville	12,738	727	5.4
Stoneham	5,577	318	5.4
Sudbury	4,694	268	5.4
Swampscott	3,404	194	5.4
Topsfield	1,054	60	5.4
Wakefield	5,010	286	5.4
Walpole	6,350	363	5.4
Waltham	N.A.*	N.A.*	N.A.*
Watertown	5,447	311	5.4
Wayland	5,742	328	5.4
Wellesley	5,627	351	5.9
Wenham	727	41	5.4
Weston	3,182	212	6.2

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

NEW SCHOOL DISTRICT ENROLLMENT TO MEET ESAA FORMULA WITH ALL NON-WHITE STUDENTS To Be Bussed From Boston, and All White Students To Be Bussed To Boston: 1982-83

School District	# White	# Non-white	% Non-white
Westwood	6,021	344	5.4
Weymouth	16,966	968	5.4
Wilmington	6,761	386	5.4
Winchester	6,134	350	5.4
Winthrop	4,329	247	5.4
Woburn	10,761	614	5.4
Dover-Sherborn	N.A.*	N.A.*	N.A.*
Hamilton-Wenham	1,190	68	5.4
Lincoln-Sudbury	3,141	179	5.4
Experimental School System Comm. of Mass.	N.A.*	N.A.*	N.A.*
North Shore Regional Vocational Technical School	N.A.*	N.A.*	N.A.*

Note: *N.A. indicates data is not available.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

METROPOLITAN PLANNING PROJECT TABLE VII - 8

SMSA SUMMARY OF THE TRANSFERS NECESSARY TO MEET ESAA FORMULA WITH ALL NON-WHITE Students Bussed From Boston, and All White Students To Be Bussed To Boston: 1982-83

Total	# Students
Total Students to be Bussed	33,154
Total White Students to be Bussed to Boston	16,577
Total Non-white Students to be Bussed to Suburbs	16,577

Note: This is slightly underestimated because it does not take into account the school districts of Cohasset and Waltham.

Source: Organization for Social and Technical Innovation, Inc. (OSTI), "A Numerical Simulation for 1972/1982 of the Number of White and Non-white Students (K-12) and the Percentage of Non-white Students in the Boston SMSA Required to Meet the Racial Balance Formula", (unpublished), June, 1974.

Technical Feasibility Evaluation

The chief measure of feasibility is whether or not a plan will work to the benefit of all participants. This was the premise of the Proposal, and it has been this principle upon which all plans must be based. On such a criterion, the Formula Plan here presented is not feasible.

More specific criteria confirm that judgment. The four fundamental premises, outlined earlier, detail a critique of the formula and of its application to the Boston SMSA. In reviewing the Formula Plan against improvements in the quality of education for all participants, innovative educational programming, shared decision making power, or measures of reduction of minority group isolation, it is indefensible in all but, perhaps, the last context. Furthermore, even if the formula were applied and minorities distributed evenly throughout the region, there are a number of reasons to suspect that minority isolation would remain a factor, perhaps an exacerbated factor, in the learning environment of individual children.

When the pragmatic criteria of travel time, mode of travel, community propinquity and communities' tendency to collaborativeness are applied, the Formula Plan has even less probability of success. As the Alternative Plan describes, transportation is a major factor in planning metropolitan collaboration in this region, and the accessibility of communities to the city of Boston and even to each other, would alone be sufficient to deny the feasibility of the Formula Plan as it stands. Were such a factor to be applied in revising the formula and restyling the region, a disproportionate and educationally indefensible imbalance would emerge among the communities immediately bordering Boston.

A number of tables in Volume II PART TWO: TECHNICAL RESOURCES amplify this time-travel issue, but it is sufficient here to illustrate the problems with Table VII - 9. Although it is 1963 data, it is reasonable to assume that the time/distance is approximately the same. There are instances, however, where travel time is decreased because of improved highway conditions.

A number of different travel routes or travel plans are possible using this table. If, for example, one were to assume most travel to and from the Model City neighborhood, in which a major portion of the minority population resides, the table demonstrates that only seven SMSA districts are within thirty minutes travel time. Since two of those districts, Cambridge and Brookline, already have a minority population sufficient to balance their own schools, only five districts would be near enough to the impact area to conceivably reduce minority isolation.

It is inappropriate to assume, however, that most travel would be between the Model City area and particular suburbs. As of September, 1974, the Boston district is desegregated under federal court order. We can assume, in reviewing the formula's feasibility, that (a) the travel time ought not exceed that already employed by the federal court, and (b) other neighbors should also be considered. Using the first assumption,

METROPOLITAN PLANNING PROJECT TABLE VII - 9

AVERAGE AUTOMOBILE TRAVEL TIME IN MINUTES BETWEEN SCHOOL DISTRICTS and Boston Redevelopment Authority (BRA) Planning Districts in Boston SMSA: 1963

From BRA Planning Districts	To School Districts and BRA Planning Districts																				
	Arlington	Ashland	Bedford	Belmont	Beverly	Boston	Braintree	Brookline	Burlington	Cambridge	Canton	Chelsea	Cohasset	Concord	Danvers	Dedham	Dover	Duxbury	Everett	Framingham	Hamilton
West Roxbury	43	41	38	36	60	25	35	17	38	33	24	39	53	44	54	13	28	57	40	39	62
Hyde Park	47	45	42	43	64	25	29	24	42	37	16	42	45	48	58	18	29	49	43	43	66
East Boston	35	60	45	32	41	22	36	26	42	22	38	14	53	57	36	40	53	59	17	58	44
Charlestown	31	56	42	28	41	18	37	22	39	16	40	17	55	51	36	36	50	60	17	54	43
South Boston	40	58	50	34	50	16	29	24	49	26	32	26	47	59	45	37	47	52	26	56	52
Central	36	58	48	31	46	20	36	25	45	21	38	22	53	55	41	38	52	59	22	56	48
Back Bay-Beacon Hill	34	54	45	30	46	14	35	21	44	19	38	22	53	52	41	34	48	58	23	52	49
South End	35	50	47	28	50	6	29	16	46	19	31	25	46	53	44	29	43	52	26	48	52
Fenway-Kenmore	33	48	49	26	48	9	30	15	44	17	33	24	48	51	43	28	42	53	25	46	50
Allston-Brighton	32	43	40	21	54	22	45	12	40	19	36	30	60	47	49	28	37	66	31	41	57
Jamaica Plain-Parker Hill	39	46	43	32	54	16	32	18	42	24	31	30	53	49	49	22	37	57	31	44	56
Washington Park-Model City	43	55	51	36	56	15	31	21	51	27	30	31	49	58	50	28	42	54	32	53	58
Dorchester including Mattapan	49	55	52	42	61	23	23	25	52	33	25	37	42	59	56	28	40	47	38	53	64
Roslindale	48	46	43	41	63	22	31	21	43	33	24	39	50	50	58	18	33	54	39	44	65

Note: This table indicates the average time in minutes it took in 1963 for an automobile to go from a BRA Planning District to the center of a School District or another BRA Planning District. These travel times were calculated for non-rush hour traffic.

Source: Eastern Massachusetts Regional Planning Project computer tape, 1963. Data transformed by the Massachusetts Institute of Technology Economics Department, Urban Project, 1973.

AVERAGE AUTOMOBILE TRAVEL TIME IN MINUTES BETWEEN SCHOOL DISTRICTS and Boston Redevelopment Authority (BRA) Planning Districts in Boston SMSA: 1963

From BRA Planning Districts	To School Districts and BRA Planning Districts																				
	Hanover	Hingham	Holbrook	Hull	Lexington	Lincoln	Lynn	Lynnfield	Malden	Manchester	Marblehead	Marshfield	Medfield	Medford	Melrose	Middleton	Millis	Milton	Nahant	Natick	Needham
West Roxbury	44	50	37	56	33	33	52	48	45	65	60	52	29	45	48	59	33	20	56	31	18
Hyde Park	37	43	30	49	37	37	55	52	48	69	64	45	30	49	52	63	35	13	60	34	22
East Boston	46	50	45	56	43	45	25	29	22	47	34	54	55	27	26	41	59	34	30	51	42
Charlestown	48	51	47	57	37	40	31	29	22	47	40	56	52	24	24	41	57	35	36	47	39
South Boston	40	43	39	49	45	48	38	38	31	55	47	48	48	34	35	50	52	27	42	49	40
Central	46	50	45	56	42	44	32	34	27	51	41	54	54	30	31	46	59	34	37	50	41
Back Bay-Beacon Hill	46	49	45	55	38	40	35	34	28	52	44	54	50	29	32	46	55	33	39	46	37
South End	39	43	38	49	39	42	38	38	31	55	47	47	45	32	35	50	50	27	43	41	32
Fenway-Kenmore	41	44	40	50	37	39	37	36	30	54	45	49	44	30	33	48	48	28	41	40	31
Allston-Brighton	53	57	50	63	35	35	43	42	36	60	52	61	40	31	48	54	45	36	47	35	27
Jamaica Plain-Parker Hill	45	51	44	56	37	38	43	42	36	60	51	53	39	36	39	54	43	23	47	37	26
Washington Park-Model City	42	45	41	51	46	46	44	44	37	61	53	50	44	40	41	56	48	22	48	46	32
Dorchester including Mattapan	34	40	33	46	47	47	50	49	43	67	59	42	41	46	47	61	46	17	54	46	33
Roslindale	42	47	38	53	38	38	51	51	44	68	60	50	34	45	48	63	39	16	56	37	23

Note: This table indicates the average time in minutes it took in 1963 for an automobile to go from a BRA Planning District to the center of a School District or another BRA Planning District. These travel times were calculated for non-rush hour traffic.

Source: Eastern Massachusetts Regional Planning Project computer tape, 1963. Data transformed by the Massachusetts Institute

AVERAGE AUTOMOBILE TRAVEL TIME IN MINUTES BETWEEN SCHOOL DISTRICTS and Boston Redevelopment Authority (BRA) Planning Districts in Boston SMSA: 1963

From BRA Planning Districts	To School Districts and BRA Planning Districts																				
	Newton	Norfolk	No. Reading	Norwell	Norwood	Peabody	Pembroke	Quincy	Randolph	Reading	Revere	Rockland	Salem	Saugus	Scituate	Sharon	Sherborn	Somerville	Stoneham	Sudbury	Swampscott
West Roxbury	21	37	50	44	23	53	54	35	28	45	40	44	56	49	60	31	38	36	47	43	56
Hyde Park	28	39	54	36	23	57	47	27	21	49	43	37	60	52	53	30	41	39	51	47	59
East Boston	34	63	43	46	47	35	56	32	36	38	14	46	35	26	62	52	59	20	29	58	29
Charlestown	28	61	40	47	47	34	58	34	38	35	18	48	38	27	63	54	55	14	26	52	36
South Boston	34	56	50	39	40	43	49	25	30	45	27	40	47	36	55	46	57	24	36	60	42
Central	32	63	46	46	47	39	56	32	36	41	22	46	42	32	62	52	57	20	32	57	37
Back Bay-Beacon Hill	29	59	45	45	45	40	56	32	36	40	23	46	43	32	61	52	54	19	31	53	39
South End	26	54	49	39	40	43	49	25	33	44	27	39	46	35	55	45	50	22	34	53	42
Fenway-Kenmore	25	52	47	40	38	41	51	27	34	42	25	41	45	34	56	46	49	21	32	52	41
Allston-Brighton	15	49	49	53	36	48	63	39	30	44	31	53	51	40	69	43	40	23	37	43	47
Jamaica Plain-Parker Hill	22	47	53	44	33	47	55	34	35	48	31	45	51	40	60	41	45	27	38	48	47
Washington Park-Model City	31	54	56	41	38	49	51	27	32	51	33	42	53	41	57	44	52	30	42	57	48
Dorchester including Mattapan	35	50	62	34	33	55	44	23	24	57	39	34	59	47	50	39	52	36	48	57	54
Roslindale	26	43	56	41	27	56	52	31	28	51	40	42	60	49	57	35	43	36	47	48	56

Note: This table indicates the average time in minutes it took in 1963 for an automobile to go from a BRA Planning District to the center of a School District or another BRA Planning District. These travel times were calculated for non-rush hour traffic.

Source: Eastern Massachusetts Regional Planning Project computer tape, 1963. Data transformed by the Massachusetts Institute of Technology Economics Department, Urban Project, 1973.

AVERAGE AUTOMOBILE TRAVEL TIME IN MINUTES BETWEEN SCHOOL DISTRICTS and Boston Redevelopment Authority (BRA) Planning Districts in Boston SMSA: 1963

From BRA Planning Districts	To School Districts and BRA Planning Districts																				
	Topsfield	Wakefield	Walpole	Waltham	Watertown	Wayland	Wellesley	Wenham	Weston	Westwood	Weymouth	Wilmington	Winchester	Winthrop	Woburn	East Boston	Charlestown	South Boston	Central	Back Bay-Beacon Hill	South End
West Roxbury	61	49	28	34	32	34	24	60	29	20	39	44	44	40	42	35	32	32	34	30	25
Hyde Park	65	53	27	38	38	38	28	64	33	21	31	48	48	43	46	39	36	29	36	33	25
East Boston	43	29	51	37	27	54	43	42	48	46	41	40	33	13	36	0	16	21	16	18	22
Charlestown	42	28	51	34	23	50	39	41	44	43	42	37	31	21	34	16	0	20	16	15	19
South Boston	51	37	45	40	29	52	41	50	46	39	34	47	41	26	44	21	20	0	17	18	14
Central	47	33	51	36	25	52	41	46	46	46	41	42	36	21	39	16	16	17	0	16	18
Back Bay-Beacon Hill	48	34	39	32	21	48	37	47	42	41	40	42	35	23	38	18	15	18	16	0	14
South End	51	37	44	34	23	44	33	50	38	37	34	45	39	27	42	22	19	14	18	14	0
Fenway-Kenmore	49	35	43	31	21	42	31	48	36	35	35	43	36	25	40	20	17	16	19	13	9
Allston-Brighton	56	42	40	24	13	37	26	55	31	32	48	46	34	31	39	26	22	28	26	22	22
Jamaica Plain-Parker Hill	55	41	38	35	26	39	29	54	34	30	39	49	42	31	46	26	23	23	25	20	16
Washington Park-Model City	57	43	43	38	30	48	37	56	43	35	36	53	46	32	49	28	26	19	24	22	15
Dorchester including Mattapan	63	49	38	47	37	49	38	62	43	41	28	58	52	38	55	32	32	22	30	28	23
Roslindale	64	50	32	39	35	40	29	63	34	34	36	50	49	40	47	34	32	29	33	29	22

Note: This table indicates the average time in minutes it took in 1963 for an automobile to go from a BRA Planning District to the center of a School District or another BRA Planning District. These travel times were calculated for non-rush hour traffic.

Source: Eastern Massachusetts Regional Planning Project computer tape, 1963. Data transformed by

AVERAGE AUTOMOBILE TRAVEL TIME IN MINUTES BETWEEN SCHOOL DISTRICTS
and Boston Redevelopment Authority (BRA) Planning Districts in Boston SMSA: 1963

From BRA Planning Districts	To School Districts and BRA Planning Districts							
	Fenway-Kenmore	Allston-Brighton	Jamaica Plain-Parker Hill	Washington Park Model City	Dorchester including Mattapan	Roslindale	West Roxbury	Hyde Park
West Roxbury	24	26	19	24	23	14	0	16
Hyde Park	27	32	21	22	18	14	16	0
East Boston	20	26	26	28	32	34	35	39
Charlestown	17	22	23	26	32	32	32	36
South Boston	16	28	23	19	22	29	32	29
Central	19	26	25	24	30	33	34	36
Back Bay-Beacon Hill	13	22	20	22	28	29	30	33
South End	9	22	16	15	23	22	25	25
Fenway-Kenmore	0	20	14	17	23	23	24	27
Allston-Brighton	20	0	21	29	34	30	26	32
Jamaica Plain-Parker Hill	14	21	0	17	20	17	19	21
Washington Park-Model City	17	29	17	0	16	20	24	22
Dorchester including Mattapan	23	34	20	16	0	19	23	18
Roslindale	23	30	17	20	19	0	14	14

Note: This table indicates the average time in minutes it took in 1963 for an automobile to go from a BRA Planning District to the center of a School District or another BRA Planning District. These travel times were calculated for non-rush hour traffic.

Source: Eastern Massachusetts Regional Planning Project computer tape, 1963. Data transformed by the Massachusetts Institute of Technology Economics Department, Urban Project, 1973.

only two communities - Brookline and Milton - are as near the Model City neighborhood as those neighborhoods already linked through existing bussing plans in the city of Boston. Brookline is sufficiently balance already which leaves only Milton near enough to compare to already integrated schools in Boston itself. Using the second assumption, that other neighborhoods should also be considered, it would be necessary to review each individual school in the city of Boston to (a) determine specific ratios of imbalance and then (b) determine the propinquity of individual schools in suburban areas from which trans-bussing might occur. Since the individual school data on Boston schools is indeterminate at this writing, such a review was not conducted and could not be projected for 1982-1983.

It should be clear that the travel time data overwhelmingly suggest that convenient application of the formula is not feasible using a reasonable measure of time. Whether that feasibility will change depends, however, only in part on such data.

Because the Formula Plan seems infeasible using any of the criteria accepted in the initial Proposal, it is useful to review the formula against each of those criteria independently, and, then, summarize the evidence testing the feasibility of using the Formula Plan to reduce racial and ethnic isolation in the Boston SMSA. It should be noted that not one of those criteria are explicitly political: that whether or not the MPP goals are politically feasible, elimination of minority group student isolation according to the ESAA formula is not feasible in any case.

A final section of this chapter will review the program feasibility of the Formula Plan as it now stands, and, in this respect, will reflect the social and political context of future metropolitan planning and alternatives to the formula plan.

Educational Quality Evaluation

The Metropolitan Planning Project advocates a quality innovative program incorporating the traditional prohibition against discriminatory pupil placement and a greater assurance of minority pupil acquisition of basic school skills. Such a program must reflect a broader definition of improved classroom performance. It must, among other things, respond to the reality of minority children who have been isolated historically. Integration, which for this section will be assumed to include the reduction of minority group student isolation, does not assure quality improvement unless one assumes that the peer group dynamics of white children is qualitatively better than that of black children. A metropolitan plan must accept the fact that children's learning styles reflect their capacity for self respect, that capacity is supported in certain kinds of schools and attacked in other kinds, and that the total learning environment is the significant target of change, rather than merely the physical or racial setting.

A number of writers argue, for example, that racial desegregation cannot be the sole and exclusive means of providing "equal educational opportunity". The legal argument for desegregation is based more on a constitutional guarantee of equal access legislated rather than mandated. Citing geographic conditions, demographic patterns or economic constraints as varying the barriers to meaningful school desegregation, they call for flexibility in order to achieve the goals of equality in opportunity.

A definition of equality as it is implied in this criterion was presented by Dr. Thomas Pettigrew in a recent paper. Dr. Pettigrew outlined eight conditions under which quality education and desegregated education were congruent. Each condition suggests a range of programs, and, together, they imply a pluralistic model, rather than the melting pot myth. The eight conditions Dr. Pettigrew outlines are:

1. equal racial access to the school's resources;
2. thorough classroom integration;
3. the avoidance of strict, across-the-board ability groups;
4. the maintenance of or increase in school services and remedial training;
5. desegregation begun in the early grades;
6. interracial staff;
7. substantial, rather than token, minority representation;
8. racial and social class both involved in desegregation.

These conditions are decidedly not fulfilled in a formula which distributes children from Boston to the suburbs in a strict numerical ratio.

The Formula Plan fails to meet the first of Dr. Pettigrew's conditions in that it ignores the variety of resources available in the SMSA. A formula distribution of students throughout the SMSA would, unavoidably, remove some students from cultural and educational resources available only in some schools. Many of these students would be minority members, removed from the developing cultural and social resources of the Black community and other minority communities, and isolated in small groups.

The Formula Plan fails to meet the second of Dr. Pettigrew's conditions in that it does not specify significant classroom desegregation. This may simply be a result of the relative supply of minority children in the Boston SMSA. A minority group in an integrated classroom implies five to seven minority children in that class -- otherwise a "minority group" is not a group at all. Using such an implication in devising a plan, there are not enough minority members in the Boston SMSA to integrate the classrooms of the Boston SMSA even if an even distribution were otherwise sufficient to assure the improvement in quality.

Table VII - 10 illustrates the problem of distributing the minority students in reasonably sized classes. Using the formula, of course, there would be different numbers of transported minority students in classes with different class size. Since class size varies among the different districts in the SMSA, and at different levels from kindergarten through grade twelve, a

METROPOLITAN PLANNING PROJECT TABLE VII - 10

NUMBER OF MINORITY STUDENTS NECESSARY TO MEET THE ESAA FORMULA BY CLASS SIZE

Class Size	1972-73 # Minority Students in Accordance with Formula(4.2%)	1982-83 # Minority Students in Accordance with Formula (5.4%)
35	1.47	1.89
30	1.26	1.62
25	1.05	1.35
20	.84	1.08

Source: Metropolitan Planning Project Support Research Component, 1974 strict application of the formula would only further segregate minorities in the region by mandating fewer than four minority students in each class. The table is hypothetical, but it demonstrates the infeasibility of class-by-class integration with the numbers of minority children in this particular SMSA.

There are a number of alternative applications of the formula which could conceivably reduce classroom minority isolation but only through sacrificing a number of other well validated educational benefits. For example, if different districts or schools integrated different grades, and not all grades, it would be possible to increase the overall number of minority students in any given classroom. To continue the example, if only grades one and two in a twelve grade system were integrated, six times the number of minority children could be transferred, thus forming a reasonable group of eight to ten children. Such a plan would, however, go considerably beyond the formula, would conflict with the class-by-class mandate, and would, finally and most importantly, imply a breakup of family groups, multiple school transfers, and severely constrain educational continuity. As long as the formula itself must constrain a plan, that plan cannot meet any other reasonable educational specifications.

The Formula Plan ignores all issues of internal school organization and, thus, does not respond to the conditions of ability level groups, remedial services, grade level differences, and staffing or social class variety. Were economic status factors directly correlated with transportation, some of these conditions might be met. Such a neat pattern does not exist in the Boston SMSA, since the industrial suburban areas include pockets of poverty as severe or more severe than the poverty in the central city. Furthermore, a reverse commuting trend, which some transportation planners see operating, suggests that transportation into or out of the central city has less to do with economic status and more to do with changing industrical location patterns. A simple design to stimulate mixes of social class and ethnic groups would, of necessity, vary considerably from place to place within the SMSA. Such variability clearly conflicts with the overall intent of a Formula Plan intended to enforce desegregation throughout the SMSA.

Finally, the issue of educational improvement through enforced desegregation according to an objective formula ignores the resourcefulness of minority-based educational innovations. Experiences in predominately minority schools indicate that they can deliver effective educational services to minority and majority students. Such experience demonstrates that the problem can be less a matter of changing racial or ethnic balance than a function of changing perception, participation and program. In successful minority-dominated schools a pattern has begun to emerge which suggests that Dr. Pettigrew's conditions reflect quality education far better than any fixed racial ratio. Such a pattern includes parental participation, a large element of choice in terms of curriculum, staffing, and placement, and a major theme of flexibility in responding to individual student needs. Such a pattern requires extensive technical assistance which may well become impossible when communities are backed into choiceless situations.

Extra-school supports, such as parental participation and community relevance are extremely important to the quality and success of educational systems. A metropolitan plan which ignores such links between school and community would, assuredly, sacrifice the quality factors in public school education to achieve a numerical but probably irrelevant parity. That many public schools are, in fact, very good schools cannot be denied. That general change in schools, both urban and suburban, is a desired goal of many parents, communities, teachers, and students is also undeniable. A metropolitan plan which ignores these facts, ignores the reality.

Innovative Educational Programming

The goal of quality education for all participants has an intrinsic objective of stimulating innovation in various learning environments. As described in the following chapter, the Design of Learning Environments projects supported by MPP were models of that kind of stimulation. A formula applied to desegregation may not necessitate such stimuli, since each school would have to assimilate relatively small numbers of transported students. This assimilation will undoubtedly take place. Assimilation does, implicitly, suggest change, but the dimensions of that change and the direction of that assimilation remain very poorly understood at best. At worst, all assimilation is enforced by a pre-existing social structure upon a set of new members: at best, transported children are forced to adopt to the social system of the schools to which they are transported. There is reason to expect that the worst of this situation would be the case, partly because of the numbers of distributed children without extensive programming, and without assistance to all levels of school personnel, parents and community groups.

It is one thing to stimulate desegregation through innovative programs, and it is quite another to necessitate different programs through enforced desegregation. The difference is more than programmatic, more than political, and more than schedule. The difference reflects the MPP and the intent of voluntary collaboration. The purpose of voluntary collaboration is to elicit and include the different kinds of creativity available in different communities. Without a voluntary impetus, there is little reason to expect a readily collaborative effect; without ready collaboration, there is little reason to expect a range of local creativity; without that grass-roots contribution, there is little reason to expect a grass-roots effect.

These critiques of a Formula Plan in terms of its innovative impact reflect the experience of MPP in drawing upon local collaboratives for proposals and planning suggestions. Voluntary collaboration does work. Voluntary collaboration has generated a wide variety of innovations. Voluntary collaboration requires funds, assistance in personnel and materials, and continued stimuli. Yet, the effect of such collaboration is both broader and more substantial, when measured against any criteria for innovation than mandated desegregation. Since such criteria are highly local and would, naturally, vary from community to community, and school to school, it would be extraordinarily difficult to generate any kind of a formula which could stimulate innovation as a specific output.

Shared Decision Making

A formula to be applied equally to every school and community in the SMSA obviously does not account for any local decision making role, whether by school administrators, school committees, community organizations, or children. It is necessary, therefore, to outline the need for such a criterion, since it is by its nature the opposite of any uniform formula solution.

The MPP has consistently stressed the need to involve participants in the planning process itself. This need is more than an ideology. It reflects the goal of developing a workable plan for the improvement of education for all participants. The educational system is not isolated from the social system which supports it. Schools are, inherently, a part of the community.

The most important innovation in a metropolitan plan is its breadth. To include different communities is to include different kinds of decision making structures, different social organizations, and different cultural and ethnic resources. A metropolitan wide plan which ignores all these resources and sacrifices the cultural and organizational diversity to achieve a numerical balance sacrifices the intent of desegregation to achieve a fragmented and impotent population.

Reduction of Minority Isolation

As noted repeatedly in this report, the goal of a metropolitan wide plan is to reduce the isolation of all groups in the region. Such a goal does not conflict with the reduction of minority isolation, but is an extension of it. The reason for this extension is itself the reason for a metropolitan concept. Isolation is, particularly in the Boston SMSA, a phenomenon not exclusive to racial or ethnic minority groups. It is as much a problem of white majority and ethnic groups.

It is this goal which forms the basis of this criterion for evaluating feasible desegregation plans. If a plan promises to reduce the isolation of different groups, it may be considered feasible. It is upon this exact criterion that the Formula Plan Simulation does not offer much promise.

The use of this formula in enrollment in schools meant the imposition of a quota system. Quotas offer the prospect of statistics about desegregation but do not preserve the integrity of the groups being numerically balanced. Since implicit in the goal of the elmination of minority student isolation is to enhance the self-concept and educational opportunity of all students, the preservation of group identity in the overall context of a pluralistic system is central to a model to eliminate student isolation.

There are five pre-conditions to achieve the MPP mandate and they suggest a range of programmatic alternatives:

1. Open housing in the entire region;
2. Equity in educational resources;
3. Equal access to decision making for all participants;
4. Equal accountability of all schools for pupil skill acquisition;
5. Elimination of discriminatory pupil placement.

They are reflected in a number of ways in Chapter VIII "The Alternative Plan." Yet these conditions clearly are not yet met in the Boston SMSA. Without a more integrated housing pattern; without further metropolitan planning and programming to achieve equity in educational resources; without equal access to decision making; without equal accountability of schools; and with discriminatory patterns of pupil placements, the goal of metropolitan-wide educational equality will not be achieved.

The point of a Ten Year Plan is to outline when and how such a system will become feasible. The programs suggested by the conditions listed above highlight some of the ways of attaining such a goal. In education alone, a number of projects are possible which show promise of fulfilling one or more of those conditions. Such a plan is not available through a mathematical formula. The Formula Plan simulation is both limited to the education system and constrained by a relatively small percentage of minority students in the SMSA. The limitation to education is by mandate. The proportion constraint reflects that mandate's infeasibility in an area with too small a minority population.

Other Constraints on Feasibility

Beyond the criteria outlined and applied above, there are a number of other constraints which further suggest the difficulty of applying a Formula Plan simulation to eliminate minority group student isolation in the Boston SMSA. These constraints reflect the geographic and demographic context of the region.

The geographic constraints have been noted before. Travel mode and travel time are very serious problems in planning the distribution of previously isolated groups. Even with expected changes in the metropolitan transportation system, travel will continue to constrain planning. Technology can only move as quickly as funds become available, and even then may have but a marginal impact on some communities. Rivers may be bridged or tunnelled, but the policy constraints in transportation planning are even more stringent than those which constrain education.

Nowhere are the transportation and educational constraints more evident than in planning to transport children across large distances. A plan which ignores the logistics of preparing different children in the same family to meet different bus schedules to different suburban or urban areas, is a plan doomed to fail. Such a plan can never receive the broad based support in minority or majority groups which would be needed to make it work. When the logistics of the geography are compounded by the fears of minority parents for the kind of reception their children may find in the suburbs, and the fears of non-minority parents of the dangers for which they left the city, geography and transportation underscore that infeasibility.

The demographic constraints have also been noted. There are simply not enough minority members to distribute evenly throughout so large a region. Such a distribution would do a disservice to those for whom the plan is intended to serve. Even with an increasing minority population in the city, there is reason to expect a commensurate growth in minority population in other pockets in the region, and further projections of population change and resultant enrollment projections tend to support voluntary, rather than formula-based programming.

Summary

This Chapter has reviewed the feasibility of the Formula Plan as mandated by the ESAA. The plan, as simulated for the Boston metropolitan area, is infeasible according to the criteria established for its evaluation. The next chapters present an Alternative Plan which meets these same criteria and, if adopted by the School Districts of the SMSA, will result in the elmination of racial and ethnic student isolation in the region.

CHAPTER VIII THE ALTERNATIVE PLAN: METROPOLITAN EDUCATION PROGRAMS

PROGRAM RECOMMENDATIONS

CHAPTER VIII

THE ALTERNATIVE PLAN: METROPOLITAN EDUCATION PROGRAMS

PROGRAM RECOMMENDATIONS

Introduction

The work of the planning year at MPP was directed towards developing an educationally workable plan which would meet the MPP mandate. The needs analysis, resource and facilities survey, information systems, various community participation mechanisms and the evaluation of the DLE projects formed the basis for the analysis of the Formula Plan, and the framework of the Alternative Plan which the next Chapters will describe. The Alternative Plan was measured against the same criteria which was applied to the Formula Plan; it was considered a feasible means of meeting the MPP goal. (See Diagram VIII-I and Diagram VIII-II).

METRO WAYS TO UNDERSTANDING represents the development of programs in which the actors will be groups of people essential to the education of children--that is, teachers, Superintendents, School Committees, parents, educational specialists, and the students themselves. Monies are not available for the complete development of an entire network of programs meeting all the needs of children from Afro-American, Hispanic, Asian-American, Native-American, Portuguese, Jewish, Italian, and other backgrounds, but a start can be made and support hopefully will be obtainable. Reading skills, as well as human relations development, must take place in each of the programs. Education cannot meet one immediate need without providing for the social, intellectual and emotional development of the whole person. Parents, teachers and school administrators must be completely aware of the implications of a well rounded development of the individual. This concept implies that the child must learn from the world around him--from Roxbury, from the North End, from Lexington, from Quincy, and from Framingham. He must learn from 'Juan Perez' and 'Patricia O'Connor'. However, this learning must provide the skills which, because of socio-economic differences, not all our children are receiving. Can studying the history of Africa and of the United States give a better perspective to white students and Afro-American students? Can it help in the development of their reading ability? Can the arts and crafts related to certain cultures be utilized to impart concepts of space and mathematics? Can learning about the Caribbean culture help the Spanish speaking child understand that he is as much a part of the world as any other? We know that all these can be done. Much training is still required. Involvement of the many resources which we now know are available must be attained.

During the development of the Ten Year Plan, eight policy decisions were made by the staff, community groups, school personnel, Governing Board and Advisory Committee which became the structuring elements of the program, administration and governance recommendations:

1. That emphasis be placed on basic skills to the extent necessary for meeting the needs of the participants;

2. That program recommendations for curriculum be geared to prepare a child with skills for post school careers;

3. That every child in the SMSA should participate in a significant multi-cultural, multi-ethnic learning experience;

4. That enrollment in each program include between 20% to 40% minority students and staff should be maintained at the same ratio. However, there are no magic numbers which guarantee the elimination of racial and ethnic isolation;

5. That teachers, school administrators, students, parents, and community resource persons involved in the programs participate in its governance;

6. That voluntary collaboratives for these programs be formed by two or more school districts and include community groups and resource persons, cultural institutions and third site learning environments;

7. That funding commitments be incorporated into state and local budgets in order to implement the programs;

8. That metropolitan educational programs for voluntary elimination of racial and ethnic isolation in the schools of the Boston metropolitan area be an integral part of every school system.

Three program recommendation provide the core of the Ten Year Plan: the METROPATHWAYS, which is primarily for the secondary school children; the METROPAIRWAYS, which is primarily for the elementary and middle school children; and METRO ETHNIC HERITAGE RESOURCE CENTERS, which are for all grade levels. It is the recommendation of MPP that each and every public school child in the Boston metropolitan area spend some significant school time in these learning programs. These recommendations will be discussed in the next section of this Chapter.

The major administrative recommendation is the establishment of the METROCENTER FOR COMMUNICATIONS, COUNSELLING, AND RESOURCE DEVELOPMENT, which is described in Chapter IX. It discusses the staffing patterns, the programmatic components and the steps necessary for its development.

Chapter X presents the governance recommendations for the metropolitan education programs and for METROCENTER. It reviews the current options in educational governance available in the commonwealth of Massachusetts and describes some other possible alternatives. The Chapter concludes with the MPP governance recommendation: the formation of voluntary collaboratives of school districts for metropolitan education programs to eliminate racial and ethnic student isolation in the Boston metropolitan area.

DIAGRAM VIII-I

FLOW CHART
Formula Plan Evaluation

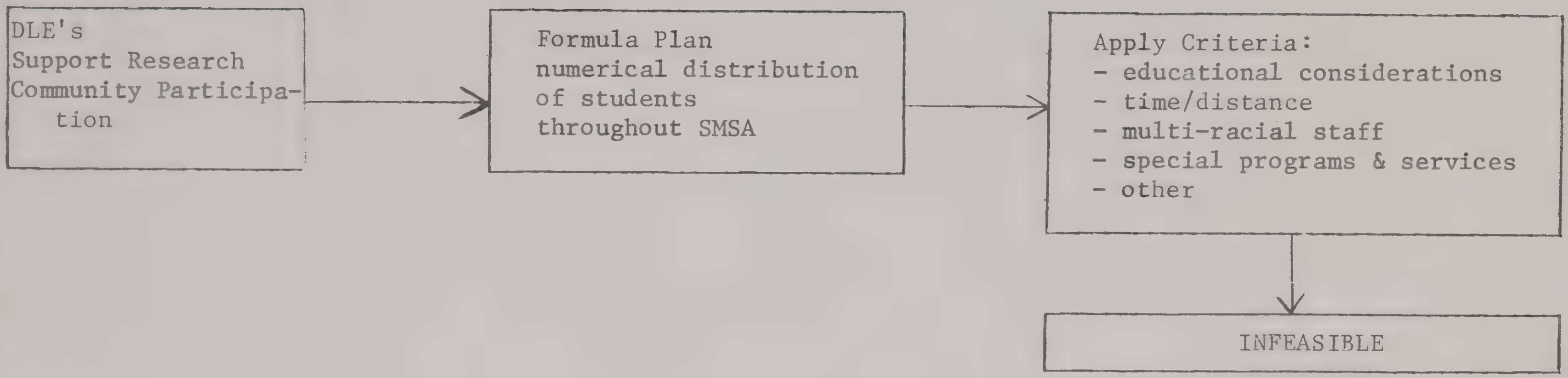
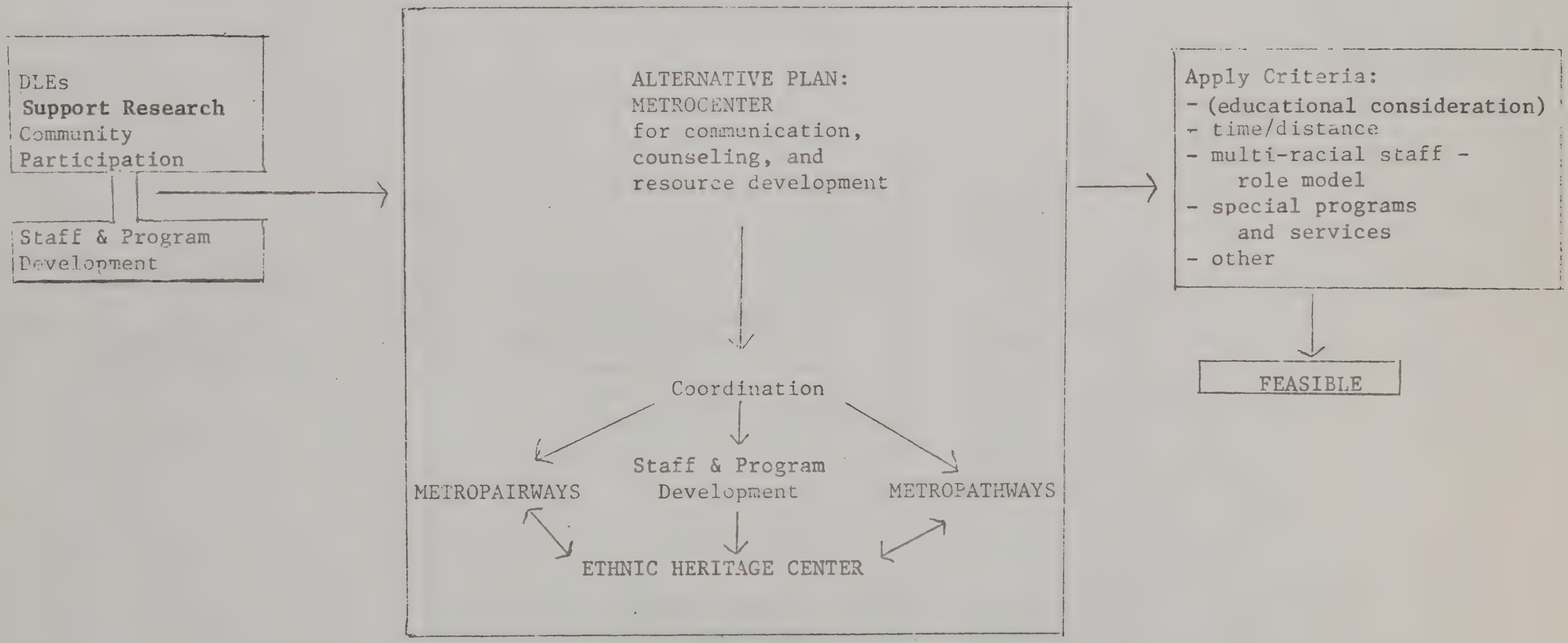

DLE's
Support Research
Community Participation
Formula Plan
numerical distribution
of students
throughout SMSA
Apply Criteria:
- educational considerations
- time/distance
- multi-racial staff
- special programs & services
- other
INFEASIBLE

DIAGRAM VIII-II

FLOW CHART
Alternative Plan Evaluation


DLEs
Support Research
Community Participation
Staff & Program Development
ALTERNATIVE PLAN:
METROCENTER
for communication, counseling, and resource development
Coordination
METROPAIRWAYS
Staff & Program Development
METROPATHWAYS
ETHNIC HERITAGE CENTER
Apply Criteria:
- (educational consideration)
- time/distance
- multi-racial staff - role model
- special programs and services
- other
FEASIBLE

Program Recommendations

Metropolitan educational programs are proposed by the Metropolitan Planning Project as feasible, viable, educational approaches to eliminating racial and ethnic isolation in the schools of the Greater Boston area. There are three essential components in the metropolitan educational programs plan:

> METROPATHWAYS which focuses on flexible, innovative curriculum program alternatives offered at several sites along major transportation arteries of the Boston SMSA.
>
> METROPAIRWAYS which establishes small, voluntary working collaboratives between a Boston school and one or two suburban schools.
>
> METRO ETHNIC HERITAGE RESOURCE CENTERS which organize resource centers representative of the ethnic composition of the Boston area to provide an information bank and facilitate evaluation of existing learning materials and the development of additional materials.

The chapter title identified these recommendations as the Alternative Plan, since it projects a different route to achieving the same objective as the Formula Plan, that is, improving the quality of integrated education for all students. Instead of mechanically applying a formula, however, metropolitan educational programs establish programmatic devices designed to achieve the same goal.

Careful and thoughtful assessment resulted in the conclusion that, for the Boston area, the Formula Plan will not: eliminate racial and ethnic isolation for students; improve the quality of education for all participants; develop innovative educational programs; and share decision making power. Although the Formula Plan could have impact on minority group isolation it may neglect an equally significant factor, the isolation of majority groups.

The Alternative Plan is characterized by many factors which have contributed to improving education for all students in other urban communities in the United States. Although the Alternative Plan extends the conceptual basis of programmatic ideas and applies the techniques to the elimination of racial and ethnic student isolation, it has many elements in common with such proven approaches as the Parkway School, the Magnet School, the Princeton Plan, and Teacher Learning Centers. The Alternative Plan is detailed in the pages which follow.

METROPATHWAYS for secondary school pupils focus on flexible, innovative, alternative programs at high school level; offers these programs at several third sites along major transportation networks; develops collaborative devices for shared educational experiences between urban and suburban high school students; has access to the rich and diverse cultures, heritages, and institutions of metropolitan Boston; expands learning opportunities and environments; reduces minority and majority group isolation; and gives the opportunity for optional participation by secondary students. METROPATHWAYS is a way to administer and coordinate programs such as those discussed in this chapter; a way for other groups to develop and pool together ideas; a way to help make them work for the benefit of the suburban and city schools which are interested and would like to participate; and a way of saying that cross-cultural and mixed socio-economic groupings of students will achieve a better education for all students.

METROPAIRWAYS for the elementary and junior high school pupils provides for two or three elementary schools to establish an urban-suburban voluntary collaborative; develops an expanded neighborhood reaching across district lines as well continuing racial, cultural and socio-economic differences; concentrates on basic skills; provides enrichment programs; encourages parental involvement; reduces minority and majority group isolation; facilitates an interchange of staff; and provides joint third site meetings.

METRO ETHNIC HERITAGE RESOURCE CENTERS for teachers, pupils and parents increase interpersonal and intergroup communication; provide for staff development programs; provide for parent programs; assess existing material; develop learning materials; demonstrate the strength of ethnic diversity; enhance self image; develop recial and ethnic pride; give opportunities to experience varied cultures; develop a variety of cultural curriculums; and develop cross-cultural programs.

Metropolitan educational programs provide the Boston area with comprehensive. inclusive, programmatic approaches to meet the MPP mandate.

METROPATHWAYS involves a cooperative effort with community commercial enterprises cultural institutions, and musical and dramatic organizations to provide a range of opportunities designed to break the cycle of discouragement, poor grades, and dropping out. These are merely examples and the range of possibilities is as broad as the vision of teachers, pupils, parents, and cooperating citizens.

METROPAIRWAYS for the elementary and junior high school pupil will provide for a voluntary interchange between inner city and suburban schools. The possibility of school pairs or triads developing special curricular with emphasis on the communicative arts or science can create school learning environments which will be mutually supportive and enhance the educational desirability of the planning concept. It should be stressed that interchange is not conceived of as being limited to pupils. It also extends across school district lines to the interchange of staff and parental involvement. In brief, the total resources of two or three schools become available to meet the educational needs of pupils.

METRO ETHNIC HERITAGE RESOURCE CENTERS will provide the total community, including pupils and teachers, with the resources necessary for an understanding of cultural pluralism in the multi-ethnic situation which greater Boston represents. In acknowledging the strength and richness of racial and ethnic diversity, Centers will provide materials and expertise which students, assisted by teachers, can utilize to build a positive identity with their heritage and a realization of the merit in sharing it with others.

METROPATHWAYS: A Program for Secondary School Students

Introduction

The METROPATHWAYS focuses upon flexible and innovative curriculum programs offered at several sites along the routes of the Metropolitan Boston Transportation Authority (MBTA) and the Boston and Maine Railroad (B & M). It is a program to outline collaborative methods for urban and suburban high school students to share the richness and diversity of metropolitan Boston's culture, institutions and heritage, through expanded learning opportunities and environments. It is a secondary school option for students who want to participate in these programs.

The METROPATHWAYS program represents one segment of the broader Ten Year Plan for the voluntary elimination of racial and ethnic student isolation. It is designed to be initiated on a small scale basis the first year and then replicated and expanded. This program recommendation introduces the concept of the METROPATHWAYS and presents the framework around which an implementation plan can be developed. The future direction and definition of the content of the METROPATHWAYS program depends on the school districts, teachers, students, and community groups who participate in the venture. Some technical means of expansion are developed in Volume II, RESOURCES FOR IMPLEMENTATION, PART ONE: PROGRAM IMPLEMENTATION: 1974-75 TO 1982-83.

METROPATHWAYS Development

The METROPATHWAYS grew out of a variety of needs and perceived wishes expressed by the different constituencies of MPP. METROPATHWAYS also developed from the expressed desire of some of the members of the Governing Board and Advisory Committee to have a few large visible thrusts which would serve to demonstrate to the metropolitan area the Project's intent to carry out its mandate. Another factor was the energy crisis: METROPATHWAYS, it was thought, would assist school districts in meeting the new and unexpected demands in the transportation modes including rapid transit, local railroads and school buses in off hours. Lastly, there are certain economies of scale inherent in multi-purpose programs which take advantage of existing buildings and institutions, both educational and presently non-educational in use.

Due to the transit timetables, which in many cases will not be synchronized with the travel needs of the students involved in METROPATHWAYS, there will initially be problems in scheduling the programs. For example, a suburban bus at the end of an MBTA line may run only once an hour which could cause problems to a student trying to reach a METROPATHWAYS site. There are encouraging signs that indicate that this will not always be the case. The energy crisis demonstrated the inadequacy of public transportation to take a car-dependent populace where it needed to travel. The fuel shortage increased public pressure for funding improved public transportation on existing routes and for extending routes to communities at the end of existing lines. One of the considerations in the planning of new routes must be commuter needs. Programs such as METROPATHWAYS, by demonstrating educational travel needs, would make a significant contribution to the planning of extended routes.

Three previous education projects provide some of the historic and programmatic roots: Linear City in New York, the Pathway School in Philadelphia and the report by Evans Clinchy titled "The City as Educator," in Boston. These innovative educational works utilized the assets of the city and stressed the need for public agencies to integrate their work efforts towards common goals. The Linear City plan stated almost a decade ago that "normal school planning is frustrating and often ineffective when there is not unity of purpose among public agencies."

Yet the Metropolitan Planning Project's development this planning year of a data-gathering network of other agencies engaged in different aspects of metropolitan planning indicates that many public agencies remain isolated; they do not coordinate their work efforts which often have common goals. The needs assesssment and evaluation of all available resources also shaped the program alternatives. Schools and school programs must play a key role in broad social policy efforts; the METROPATHWAYS was designed, in part, to further this intention and to act as a bridge in joining together a variety of urban community service systems.

In its search for possible approaches to the problem of how best to eliminate minority group student isolation in Metropolitan Boston, MPP focused on new ways to provide quality education for all children in the region. Recognizing that many programs involving two or more districts have made steps toward reducing racial and social isolation, MPP provided financial support for the development and testing of programs which would meet this goal through the DLE projects.

The DLE programs shared one or more of the elements outlined below. First, they brought city and suburban young people together in a non-school setting. Second, they capitalized upon the educational resources of the city in their design and implementation. Third, they provided a blend of action and reflection,of field experiences and classroom learning. And, finally, they consistently resulted in a high degree of parent, teacher, and student involvement and enthusiasm for the programs.

Several of the Design of Learning Environments projects are particularly relevant to the proposed METROPATHWAYS project. These programs, and others described later in this chapter under potential curriculum options, are typical METROPATHWAYS options for high school students.

Finally, the MPP Community Participation meetings and the number of the proposals submitted for projects clearly indicate the interest of community and school groups, of diverse backgrounds, in innovative teaching and learning programs which produce quality education and meet the needs of a racially and ethnically pluralistic student body. METROPATHWAYS is a program model which responds to that interest.

The educational aims of the METROPATHWAYS program were generated by many sources as have been previously described: community group workshops, proposals, Superintendent's meetings, survey and analysis of data in the metropolitan area and the MPP staff. Apart from the overriding mandate, the aims can be classified in three categories:

Flexibility and Collaboration for Participants

To involve students, teachers, communities, administrators and planners in a unique coalition which can provide support and ideas for programs and governance.

To provide support services for staff development and community participation in the educational decisions.

To develop mechanisms for collaborative interdistrict program which may provide replicable models for other regions.

Broadening of Available Materials and Options

To encourage and nurture a working interaction between educational program aims and the goals of other urban systems, such as business, industry, culture and government.

To facilitate cooperation between other alternative programs which include components of staff development, management training, guidance, media and experience in occupational and vocational education counseling.

To initiate an informational system in the METROCENTER FOR COMMUNICATIONS, COUNSELLING, AND RESOURCE DEVELOPMENT for alternative programs and provide for student support services.

Maximum use of Metropolitan Resources

To develop innovative programs at "third" sites utilizing the existing metropolitan transportation network.

To increase student mobility.

To establish multiple opportunities at these sites for students with different backgrounds to work together and learn from each other.

To maximize use of existing learning sites, both public and non-public.

To provide a forum which will encourage people to create relevant multicultural materials and programs, maximizing the themes of diversity and mutual understanding.

In order to assure the primary goal of eliminating ethnic and racial isolation, METROPATHWAYS will utilize a variety of innovative curriculum options.

Potential Curriculum Options

It is through the curriculum options of the METROPATHWAYS that students from the city and suburbs will interact and share learning experiences. Programs will be designed to facilitate new ways of understanding the cultural, economic and physical environment while encouraging necessary and basic studies. The curriculum options, scheduling mechanisms and staff and community development procedures will all reflect common goals and will seek methods of sharing between city and suburb.

The social diversity of METROPATHWAYS will manifest itself in the racial and ethnic composition and the blend of social and economic backgrounds of the participating students, teachers and auxiliary personnel. As a basis for program design, the student composition of the curriculum options must include 20% to 40% minority group student participation, the specific proportion to be determined during the implementation phase. The primary objective of MPP is to eliminate racial and ethnic student isolation, therefore, an program failing to attract sufficient minority student interest will not be scheduled.

The curriculum abstracts included in this chapter represent areas of interest expressed to MPP by educators, representatives of community groups and other interested people. They range from the development of basic skills programs to programs which explore career development, cultural heritage, ecological problems and alternative living environment. The options are flexible and adaptable. The content of these options must be formulated to meet the needs and wishes of the participants. The initial planning stage will be an appropriate starting point for this collaborative development of curricula. The curriculum itself will be a product of interaction among school adminstrators, teachers, educational specialists, parents, resource and auxiliary personnel and students. They will, as teams, define the content, development and scheduling of several options. The curricula areas recommended by MPP are those which increase knowledge in skills helpful for post high school experience. The curricula described here will be reviewed and changed, or others proposed where necessary or desirable. Such an adaptable process is a critical element of this program structure.

There are sixteen program areas which could be utilized in the first operational phase which emerged from the planning year:

Ethni-City

The Transnational Academy

Career Investigation

Metro Class

Metro Arts

Bicentennial/Futures Project:
History in Transit

Outdoor Exploration and Sports Program

Storefront Video

The Theatre Company of Boston

C.A.S.E.S.

Boston Street Academy

E.N.E.R.G.Y.

Charles River

Political Discovery
in Government Center

Social Discovery

Metropolitan Cultural Alliance

Ethni-City

"Ethni-City" may be seen as the mechanism by which materials, resources, and programs will be developed in a culturally pluralistic fashion emanating from the METRO ETHNIC HERITAGE RESOURCE CENTERS. The activities and planning involved in such a program depend on a workable and equitable coalition of minority and ethnic educational representatives stimulating the interest of districts and working cooperatively to maximize social and educational impact.

Programmatically, an Ethni-City coalition team might develop options in such areas as "Comparative Arts," "Culture by Immersion" (as in the Transnational Academy), "Culture Sampling," or a group of mini-courses on definitive Boston neighborhoods and living styles, such as Roxbury or the North End.

Such programs could fit the scheduling option plan for METROPATHWAYS since part of the design features a city alternative site in which cross-cultural exchanges would be facilitated and encouraged. The proposed use of auxiliary personnel will allow greater input by community representatives and ethnic and minority personnel for resource use, as well as for aid in program implementation. These persons could function as teacher team-leaders, human relations facilitators, or support personnel.

Materials development is a continuing activity and special material and resource design fitted to a specific program is of greatest importance, particulary if the materials are specially adapted to the Boston area and its unique cultural make-up.

The conception and utilization of the city as a "neighborhood learning lab" which reflects a culturally rich and diverse environment will stimulate students to be participants in an action-oriented program rather than passive textbook readers of the development of cultural attitudes and customs.

Activities for the program would include: the development of procedures for reviewing current materials and textbooks comprising the standard high school curriculum; the development of new study materials and learning packages which are culturally pluralistic, "unbiased," and representative of minority cultures; the development of minority advisory groups to devise guidelines for community input and participation in pluralistic programs; the organization of staff development and training programs in areas such as human relations, individual learners, minority students, and cultural history; and the development of a resource bureau to include a speakers bureau; the development of audio-visual materials for use by such speakers, and the program demonstration for districts and parents.

The Transnational Academy: Bilingual Education*

The Transnational Academy would be a learning environment where students could learn within their own language, and within their own culture for one-half of the school day and in English the other half of the school day. At the same time that such a site would be meeting the needs of linguistic minority students, it could serve as an innovative foreign language school for gifted foreign language students. A site could be established in which students of different linguistic groups who are not English-speaking students could participate in a bilingual classroom situation. Meanwhile, throughout this school system, notices would go out to foreign language teachers asking them to identify talented students. These talented foreign language students could then participate in foreign language learning not merely by rote and memorization, but throught involvement in actual knowledge being transmitted in the language. Several communities, particulary Boston, Cambridge, Chelsea, Brookline and Framingham, have significant numbers of school-age students who are not English-speaking and who could benefit from a bilingual-transitional education. Communities such as Concord, Lexington and Weston might be very attracted to this method of learning foreign language, which has been demonstrated by many foreign language classes working with the Spanish community in the urban setting. A program of this nature could serve the two purposes of providing a history and ethnic culture curriculum, and a foreign language curriculum.

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*This is an abstract of a proposal by Armando Martinez, Former Executive Director - Puente Fund, Inc.

Career Investigation Program

The Career Investigation Program is a four phase examination of occupational opportunities, considered broadly. The first portion of the program will take place in a conventional classroom setting, studying both psychological factors which influence the work experience, and specific process requirements expected of workers at job entry levels. The initial procedure will include gaining knowledge about types of work which exist and how they relate to skills. Students will analyze, observe and discuss occupations found in their own locale. Using media devices, such as newspaper and films, they will investigate trends in employment and gain a comprehensive look at different kinds of occupations. Students will learn how to write resumes, participate in interviews, select jobs and employers carefully, and will become aware of the rights and responsibilities of the worker.

During the second phase, at the alternative site, students will participate in many different kinds of "social dynamics" situations, such as buddy systems and teams. They will work from common bases of experience to solve problems in decision-making and human relations; teachers will provide constant support services on an individualized basis. Aptitude tests as well as career counselling would be a continuing activity by both teachers and non-educators.

Because these students will represent a racial and socio-economic cross section of all students in the SMSA, students selected will gain valuable insights into how other people view occupations and personal relations from the experience of teamwork and social dynamics situations. They will come into direct contact with minority resource personnel and work with them in an interactive way.

The staff will be composed of interdisciplinary teachers working as a team. Representatives from a wide variety of occupational areas will work with this team to create innovative learning experiences. Facilitator-teachers chosen for the program will work together to formulate a curriculum for the alternative site phase of the program which will dovetail with the students' regular curriculum requirements. Teachers will place emphasis on human relations and development of investigative skills.

The minority resource personnel participating in the program will function as role models and problem solvers for both students and teachers. They will develop programs and mechanisms for use in the on-site phase, will work closely with the teacher team-leaders to facilitate small group and individual contact with students, and will be a source of "reality testing" for students and teachers.

As the program progresses, students will have more opportunities to analyze occupations in depth, and will begin to narrow their options and focus on a few preferential occupational clusters for investigation in greater depth during phase three. Students will have many opportunities to share information on general areas of occupation with other students in the program and to discuss experiences and solve problems together. They will interview both employers and employees about work experiences, analyze the operation of a business or work site and participate in an intensive work experience at a chosen site during the third phase.

Such a learning option during the third phase could be a work site, either for school credit or money; a high school internship; another available alternative program such as different METHRPATHWAYS option; or an internship with a service or government agency. This learning option could be in the student's home district or other districts; however, students must structure their individual programs with personnel at the alternative site in order to insure that they meet requirements and work on individual learning problems.

The fourth phase is a follow-up and evaluation component, which would take place at the home school district.

Metro Class

Boston presents a real opportunity for both urban and suburban students to confront contemporary issues, particularly those of government, since Boston is a hub of state, local and federal activity. A city-study program would study urban problem areas, employ both the city and the student's home locale as learning labs, rely heavily on the use of auxiliary personnel, and use the framework of the METROPATHWAYS model scheduling option plan.

Student investigatory teams will work around a central goal. Phase One of a Metro Class program, originating in the home district, will focus on the local scene. The teacher/team-leader will use the first six weeks of the program as a study and overview phase, employing local resource people to work with students on problem areas. Visual and reading materials will augment the study of urban life.

In the second phase, at the alternative site, the process of investigation will be continued, but in a much more specific fashion, since the students will have narrowed their field of interest to a particular urban problem area. Areas of study could include: transportation, housing law and the courts, ecology and pollution, politics and government, city service and servants, city resources, leisure activities, education, and city-suburban issues. Any one of these would be approached by one student as a career investigation; by another as a sociological issue focusing on prison reform.

Working in teams, students will investigate a particular problem in depth using interviews, research, in-site observation techniques, discussion, and visual resource material, such as films. Students will act as resources for each other, since link-ups with specific individuals on one problem will engender contacts with different individuals on another; students will begin to understand that no problem stands alone, but is linked to many others, and thus facilitate interchange between auxiliary resources and student teams.

Auxiliary personnel will facilitate human relations training at this site. Other will act as contacts and resources for students to create options, such as a Government Center Internship, in which the student would spend several weeks working in a government office. In language arts "classes" at the alternative site, students can be instructed in interview and communications techniques, so that they can ask significant questions and demand specific answers from city "leaders".

In the third phase, the Learning Options, the student discusses with staff and auxiliary personnel the scheduling for the alternative site, so that individual learning situations may properly be addressed. The remainder of the student's program may be paid, or credited, work experience in his general area of interest, such as a service agency, a college internship, or another alternative program. Any option chosen, however, is to reflect the students and teachers return to their home school and regular schedules. The fourth phase will be a follow-up.

Metro Arts

Metro Arts is a program designed to make use of Boston's cultural institutions to provide a culturally pluralistic, thematic investigation of the creative arts as they have developed historically. The rationale for a cultural resource program was developed this year from information received by the Metropolitan Planning Project's dealing with the creation of culturally pluralistic materials and programs, and with the use of Boston's myriad artistic and cultural institutions in curricular innovations.

When cultures are explored using creative arts as a thematic approach, fundamental similarities between peoples emerge. All cultures use some form of music, for example, Asian and Aztec shadow dancing developed in a parallel way and emerged as creative forms at about the same time. Most importantly, all cultures say things about themselves through the medium of art. Students should have opportunities to learn that art and culture are intertwined--that the creative arts relect the spirit and experience of mankind. To develop an appreciation of the inherent value of diverse artistic cultures through an active exploration of art forms, as opposed to participation in the passive, traditional art appreciation courses, is important. Sharing in the drama of the August Moon Festival, an annual Chinatown event; seeing interpretive African dancing at the Elma Lewis School; hearing poetry of Puerto Rico; or participating in the festival of the Native Americans could be aspects of study for the students.

In cooperation with the school art department, with emphasis upon visual materials such as slides and films, and with the aid of creative arts resource people selected for the program, students will participate during this first phase in an investigation of creativity manifested, perhaps, through local art centers or festivals. Structured field trips to Boston will come at the end of this local "analyzing" phase, while human relations training would be an on-going activity in preparation for the second phase.

During the second phase, in the alternative site, interdisciplinary team-teaching will be the major process vehicle, and students will form teams in order to facilitate cross-cultural interaction. Students will choose a particular culture they wish to study and "immerse" themselves in the creative arts and history of that culture. Staff and resource people will provide options and contacts for students who would become familiar with the appropriate creative arts resources in Boston and its suburbs.

In the third phase of the program, students will plan their own course of study with the staff. Depending on their individual learning style, interests and capabilities, students will arrange to spend a part of their time at the alternative site as a learning option. Thus, a program will be tailored to individual needs and desires. Options for short internships might be available with a university's art department, the Mayor's Office of Cultural Affairs, the Boston Visual Artists' Union, the Metropolitan Cultural Alliance, Council for the Arts and Humanities, or with an individual artist or institution. Students will remain involved with a particular culture's creative area, but may choose their own operational style and specific area of interest. As with other METROPATHWAYS programs, the fourth phase in this scheduling option is a follow up and evaluation phase carried out at the home district.

Bicentennial/Futures Project: History in Transit

This program will begin with a historical view, by neighborhood, of the evolution of Boston and will focus upon three basic concepts:

Boston, The Government Center

Boston, The Harbor City

Boston, the Neighborhoods

Students will choose a neighborhood or community and study its development, beginning with the pre-revolutionary community. Housing, transportation and population changes would be viewed historically by student teams and cultural institutions will be drawn upon to develop specific facets of Boston's past. Student projects could involve a tour-guide presentation on neighborhoods and sections of the city for tourists to use during the Bicentennial Celebration or a mapping of special transit routes emphasizing different historical trends in Boston.

However, the past should be seen in light of future considerations for a better environment; therefore, the program would be divided into two parts, the second being a "Futures" course. Students will pose questions and seek answers pertaining to the city's future economic and social role, the suburban role in the future of the city, the problems of managing the city's needs in the future and the question of how people must interact to build a liveable city environment. Student teams will project the city of the future from their study of today's city and its problems such as transportation, pollution, employement and housing.

Another variant of the Bicentennial theme is the "History in Transit" proposal submitted by Roger Thomas of the Massachusetts Experimental School to MEP, which outlines a method by which Boston's historic heritage will provide the basis of a curriculum program which utilizes the MBTA facilities. The plan calls for an expansion of the MBTA services to include many of the historic sites presently serviced by the MBTA but combined into a single route. Special buses would be outfitted with a stereo speaker system and an operator controlled stereo tape deck in addition to a special "tear off" or pull down map of the points of interest along the route. It is also possible to provide multi-lingual programming on earphone channels. As the system is also designed to facilitate the use of these buses for a tourist service, these features have been designed to minimize the bus operator's extra duties. Yet another aspect of this "History in Transit" program is the use of a Black History Trail developed under a DLE grant to the Afro-American Museum.

Outdoor Exploration and Sports Program

Outdoor Exploration: The Outdoor Exploration program could be based on the model of the successful project, Project Adventure, in Hamilton-Wenham, but adapted to make use of city as well as rural areas. City and suburban children will be teamed to learn canoeing, camping, and fishing. They will learn how to survive on their own in the wilderness, with few resources, by learning to depend on each other and cooperate. Students will study the effects of society's ignorance about ecological responsibility while faced with the dilemma of assuring economic growth in an expanding society; they will be required to carry on some service-oriented project while involved in the program, such as tutoring younger children, acting as school volunteers, or working in a parks-recreation project. Such a project should be approached in an interdisciplinary fashion, and should rely heavily on the use of human relations techniques in small groups.

Sports Program: An athletic program which utilizes the "glamour potential" of professional sports stars to initiate strong and permanent integrated programs based on mutual athletic interest has been proposed for METROPATHWAYS. The assumption is that the presence of the "stars" will be the initial attraction both to students of suburban communities and urban students of multi-ethnic backgrounds. In addition, these programs will promote skill development in both physical endeavor and in language communication across cultures. College students who have participated in nationally known athletic programs and who may already be known to the students, will constitute an integral part of the core group of participating staff, giving the program continuity and stability.

The program will focus upon team and individual sports. Consideration will be given to lifetime sports and each student will be encouraged to sample from a wide variety. The essential ingredient of free selection, however, will be of paramount importance. It is hoped that having the stars moving around working and helping students who are actively participating will be more effective than passive observation in terms of meeting the MPP mandate to eliminate racial and ethnic isolation.

Storefront Learning Center Video Project

The Storefront Learning Center Video Project consisted of a twelve-week cross-cultural education program utilizing the techniques and potentials of a half-inch video-tape production as a learning experience for middle school students. Twelve students were recruited from the Bancroft Elementary School in the South End of Boston and twelve students from the Cambridge

Friends' School, a private school located in North Cambridge. This combination of schools resulted in a heterogeneous mixture of students, reflecting a wide range of economic, racial, cultural and educational backgrounds. The three-person staff (a director and two part-time teachers) shared a similar diversity of background and operated as knowledgable teachers, responsive to the concerns of the students.

The video program ran from April 16th to July 12th, 1974. Two groups of students particpated--one meeting twice weekly, the other once a week. The difference in frequency of meeting was designed partly in response to scheduling exigencies and partly to compare the programs effectiveness to compute the optimum number of sessions per week. Students were trained to plan, write, tape, and edit video-tape. The process of learning to produce videotapes also involved the development of academic and social skills. Techniques of interviewing, improvisation, creative writing, and dramatics were stressed as part of the curriculum. Concurrent with these educational objectives were personal and group goals. Students were able to use the portapak equipment and accessories competently, to explore their environment and to express themselves. The feedback capacity of the video system was exploited in fostering positive self-images and cultural pride through affirmative presentation of the student's ethnic heritage.

Theatre Company of Boston

The Theatre Company of Boston taught a theatre production course of academic credit to fifty students from the Boston, Watertown, Brookline and Lincoln-Sudbury high schools. The purpose of this DLE pilot was to serve as a model for introducing theatre arts into the school curriculum and for establishing a professional company of actor/teachers supported on a metropolitan basis.

Basic acting techniques were taught by professional actor/teachers. Work began with relaxation, which is the base from which all work of the actor follows. From this, the work continued in discovering the various physical centers which an actor must use for his character building and a stage reality.

Complementing this work there were classes in voice and body development and exploration. These were extended beyong the mere exercise stage, by being called into play during improvisational work, monologues and scenes from plays. Students were assigned to read different scenes at home which they would like to work on in class. For the most part, the students were good about working at home, but very bad about handing in their written assignments.

Before specific work began on production, there was a two part exam. The first part was written and the second was videotaped. This was very instructive for both the teachers and the students. The students had a much surer sense of what they needed and what they had to work on. After this, it appeared that a lot of the work was more serious than it had been, as it became clear to the students that work could be done well, or badly.

The last four weeks of the course were spent working on the production. Students brought in scenes from plays they had read and were interested in doing. Some students even wrote their own material which was eventually incorporated into the performance.

Ten students were specifically involved in the construction of the set, much of which was done after school hours. One student worked on costumes, but all students helped assemble or make part of their own costume.

The student production titled "Metroliner," was given seven performances. Each d the company and the equipment travelled to one different location--Boston, Brookline, Roxbury, Watertown and Lincoln-Sudbury. There were two evening performances held especially for the parents, friends, teachers and interested spectators who could not see the performances during the day time hours. These two evening performances were held at English High School and Brookline High School.

For most of the students in the company, this was the first time they had been before an audience in their lives. These were difficult audiences, since the students were being viewed by a known group of individuals for the most part; one which carried heavy weight since their parents, teachers, principals and peer groups were watching them.

C.A.S.E.S.

In conjunction with the National Alliance of Businessmen, the Federal Reserve Bank, and the Lexington and Boston School Departments, BHelp (Business History and Economic Life Program, a non-profit educational corporation) initiated a planning process and a pilot course designed to provide a positive integrated education within the larger context of responding to the special needs of high school students. The basic purpose of this D.L.E project was to provide an approach to the reduction of minority group isolation in the Metropolitan Boston area by working within the larger framework of providing a stimulating learning environment.

The program was directed toward a high school student's need to understand basic principles of economics and the way those principles operate and affect society. This need was coupled with the myriad of resources available in Greater Metropolitan Boston. The community became the classroom, and site visits to farms, small businesses, educational institutions, banks, electronic firms, major department stores, insurance companies and other business firms were developed to introduce students to different viewpoints and relationships which influence economic history.

Students from participating high schools were introduced to the "case study" method of teaching and learning by selected teachers and personnel from BHelp. BHelp has pioneered the thrust of this curriculum design since 1961 and has been involved with major universities and businesses in developing ways of increasing economic understanding by close personal investigation of businesses and their economic history.

Students have opportunities to work in racially, ethnically, and economically mixed task groups and to collect data through interviews, on site visits and research,which contributed to the development of original, written case studies. Students were encouraged to design their own cases from their own culture, racial and ethnic experiences and observations. Three cases were produced; students based on these visits and training in the case method formed the core of an economics curriculum which could be introduced through other classes (history, mathematics) and could be expanded into more advanced courses. Tangentially, the Youth Motivation Group (from the National Alliance of Businessmen) provided special career counseling and a comprehensive program directly relating to the Cases curriculum and which will emphasize the "world of work."

Boston Street Academy

The Boston Street Academy program involved parents, staff and students of high schools in Boston and Cambridge in planning a drop-out prevention program that was also aimed at helping improve the self-image and image of other groups for both minority and majority group students as a DLE project.

The program utilized the Flexible Campus concept in that the students spent half the day in their home schools and spent half a day at the Street Academy taking small group courses in reading, meth, science and cultural history. Additionally, the program provided individual and group counselling and tutoring for students as needed. The target population was the underachievers identified by the schools. These students were invited to volunteer for the program, after it was explained to them.

Program Objectives included:

1. To upgrade the academic achievement of underachieving students, making it possible to meet and compete with, on an equal basis, those students from schools with a higher achievement;

2. To improve the self-image of these students, as part of the overall effort;

3. To improve the image these students have of students from other racial and ethnic backgrounds;

4. To test out the following assumptions:

    a. That in both majority and minority students, low academic achievement, low self-image and negative images of other groups go hand-in-hand;

    b. That a program originally developed for minority students can be expanded and adapted to serve majority students as well;

    c. That a curriculum, instructional strategy and faculty can be developed that will improve both academic standing and self-image of both groups;

    d. That, as academic prowess and self-image improve, students can be helped to develop respect for and acceptance of students from other racial and ethnic backgrounds.

E.N.E.R.G.Y.

The Experimental School System of the Commonwealth of Massachusetts planned and piloted a project that involved minority group high school students with students from varied backgrounds in a cooperative and productive study focusing on the issue of the energy crisis. This issue was selected for its relevance to the lives of the individual students, the participating communities and to national interests. The forty students involved in this project came from Boston, Lincoln, Sudbury and Cambridge. The students developed a report on the energy crisis as it is perceived as an issue by different groups of people, but especially around the problem of transportation. The overall design of this DLE project produced an educational program involving students from different cultural environments who worked together to collect and report data relating to the use of energy resources. The methodology by which the students operated can be used with other ecology and environmental issues.

Program objectives included:

1. Design a plan for an educational program which involves students from different physical environments and different cultures working together to collect and report useful data relating to the use of energy needs as defined by these groups, energy priorities as defined by these groups;
2. Establish and make use of community resource committees (including parents, business and industry representatives, teachers, agencies and organizations) to assist in the process of defining energy needs by and across community demographic-related lines and reporting such definitions to both the Project and the communities involved;
3. Annotate and describe a series of learning activities for a group of students comprising different racial and ethnic backgrounds, this series of activities to include specifications for study and experiential units relating to energy needs, energy resources, energy supply routes, and energy costs pertaining to different kinds of communities and community groups found in a major urban complex;
4. Experiment with and report on different ways for achieving cost-effective energy conserving suburban-urban interactions by student project related participant groups of parents, teachers, businessmen, community leaders, and elected officials;
5. Provide learning experiences for participating students as well as suggested methods for replicating such experiences in other areas of environmental concern;
6. Prepare a student-developed report on the energy crisis as perceived and confronted by groups of people with differing racial, ethnic and economic backgrounds; dissemination of this report through media outlets both in process and in summary form.

The Charles River Project

The Charles River Project, developed by the MPP Community Participation staff and the Urban-Suburban Steering Committee, will bring together students from varied communities and backgrounds in integrated groups for on-site environmental learning experiences. Curriculum will focus on the Charles River and its environs, and will provide opportunity to examine land, air, and water systems, the interaction of ecology and technology, and the resulting social and political problems. There is a wealth of resources-- institutions, government and community agencies, the city and the suburbs-- available to participants. A career education component to provide students with opportunities to become familiar with an environmental career. The overall goal of this program is to bring urban and suburban majority and minority students together in a non-school setting to develop a common understanding of mutual environmental careers.

Students can discover that the future of the Charles will be determined by lots of little decisions-- how streets and parking are designed, where houses and industries are built, who makes use of the river,for what purpose-- by every decision made about the shores as well as the river itself. They can gain an awareness of how they can participate in these decisions in the future. They can become familiar with the kinds of work people do relating to the river - planning, building, landscaping, testing and treatment, recreation, legislation and law enforcement. They can develop ways of sharing these new learning experiences with others. Program objectives include:

1. Design and pilot an environmental studies curriculum for the general student that focuses on the river and its environs:
    a. That will be concerned with ecology and its social and political implications;
    b. That will involve students, teachers, administrators and community resource people in the planning and implementation of curriculum.
    c. That will stimulate creative and critical thinking by students, teachers, and resource people through such methodology as the inquiry process and value clarification activities;
    d. That will examine the many points of view on the environment that derive from diverse cultural heritage;
    e. That utilize resources of the city and the suburbs regarding the river.
2. Provide for a variety of skill development opportunities:
    a. Critical and creative thinking;
    b. Analytical processes, water testing for example;
    c. Social skills - interpersonal relationships;
    d. Observational and recording skills - logs, diaries, photography, tape recording, and sketching;
    e. Political skills in the environmental area.
3. Develop student awareness of a variety of career options in the environmental field.

Political Discovery in Government Center

Political Discovery in Government Center is a program developed by Educational Collaborative for Greater Boston, the Experimental School System of Massachusetts, the MPP Community Participation staff and task forces, the Mayor's Office of the City of Boston, and others. The goals include:

1. Developing a variety of educational programs, using the resources of Government Center, to promote active, responsible citizenship in our democratic society, and to make governmental agencies more responsive to a wide range of community and student concerns;

2. Bringing together, with Government Center as the focal point, students and teachers from the suburbs and the city; the minorities and majority; the public, parochial and independent schools; thereby reducing racial and ethnic isolation and fostering a stronger sense of community within the Greater Boston Metropolitan area;

3. Encouraging broad citizen participation in the planning of these programs by including parents, teachers, and students along with people in public and community services on all levels of government, willing to share the responsibility of education through their knowledge, experience, and financial help;

4. Helping students discover the opportunities for employment in public and community service through career exploration, and to offer them the possibility of in-depth experiences in these areas which will be seen by the employing community as marketable skills;

5. Constructing these programs without any additional financial burden to the schools, by making quality use of presently existing funds and personnel resources in the schools, through redirection and recombination To build into the programs guarantees for flexibility and growth.

Two basic programs are envisioned, a Government Center Sampler, and semester-long Internships. These programs, and the support services which will assure their quality, are explained below.

Government Center Sampler :

A one week, intensive program for teachers and students can be offered, introducing them to the incredible variety and volume of activity which goes on daily in Government Center. Programs will be tailored for groups and individuals, catering to special concerns and interests. The focus will be polical discovery, structured to relate to curriculum the students experience in their high schools. For example, if a group of students is studying environmental problems in school, they might move from agency to agency involved in the execution of an environmental impact statement to learn about the complexity of government's functioning.

Semester-Long Interships:

Internships for high school juniors and seniors placed in various government and government related agencies will begin. The intention is to build upon activity already underway between Lincoln-Sudbury Regional School District, the Boston Public Schools, the Massachusetts Internship Program and the National High School Executive Internship Program.

Support Services:

To insure the quality of these programs, and to encourage the growth of additional ones, two support services will be offered. The first is a Resource Center in the Government Center area, building on the existing Haymarket Information Center. At the Center, information and services will be provided: maps of the area, listings of agencies and individuals, a calendar of events, access to volunteers, and a place to meet and discuss what is being learned. Teachers who will be involved in the programs will be able to work with the Center's small staff prior to the week in Government Center. Follow-up services will also be offered.

The second support service will be staff development offered by the Experimental School System of Massachusetts. Teachers are rarely trained to teach outside of the traditional classroom setting. Some do not know how to sensitively and effectively interact with students from a variety of backgrounds, racial, social, ethnic and other. Teachers cannot be expected to have specific knowledge about the resources of the Government Center area. The staff development component of the program will augment teacher skills in these areas.

Social Discovery

The DLE project, Social Discovery, was conducted by the Reading Public Schools with fifty students participating from Boston and Reading. The aim of Social Discovery, an alternate semester program, was to provide an opportunity to develop greater knowledge of the basic forms of social organization which compose the fabric of American society. Students grew in the knowledge of the purposes, benefits, and limitations of all those basic social structures in which they are likely to participate (e.g., families, factories, schools, clubs, churches, business concerns, and military services). In addition, they studied the relation of these basic units to sub-cultural groups and the society-at-large. This was accomplished through the gathering of first hand experience combined with academic analysis, by not only having the students read and research a variety of life styles and social conditions but also by actually participating in the living situations they were studying. The support from parents and community was extremely good.

The program began with a three day orientation. Following this were four independent units. During these periods, each student investigated and lived in a new social organization and sub-culture. The units included several basic social structures:

The Solitary Unit (i.e. living alone as many elderly and single persons do)

The Family Community Unit (both nuclear and entended family)

The Semi-Structured Community Unit (i.e. living or working cooperatively as in monasteries, convents, dormitories, unions, or partnerships)

The Highly-Structured Community Unit (i.e. living or working under formal authority as in the Navy, residential preparatory schools, or assembly line factories)

For each unit a group of fifteen students was assigned to a teacher specialist, such as a family sociologist. Each unit was divided into three parts: preparation, experimental placement, and assessment. During the preparatory period, the student did classwork and began the readings and assignments developed for the unit. With guidance, the student prepared a preliminary report on the purposes, problems, and possibilities of the social structure and sub-culture he is about to enter. This report was based on readings, research, film analysis, lectures, interviews, speakers, field trips and personal expectations. Following this, the student traveled to a site representative of the basic social structure under consideration. He spent approximately two full weeks living, studying or working there. The selection of sites included:

Factories
Monastaries
Preparatory Schools
Urban and Suburban Families
White, Black, Spanish and Oriental Families

Rural and Island Retreats
Extended and Nuclear Families
Elderly Individuals' Homes
Maritime Academies
Convents
Dormitories

These units representatively covered the spectrum of possible social organizations and sub-cultures. All fifteen students in the study unit were urged to select a placement different from his own personal life-style. A White Suburban student lived with an extended family in the Asian-American, Black or Spanish communities, while a Spanish urban student lived with a nuclear family in the suburbs.

At the conclusion of each unit, the fifteen students returned to share the information each had gathered. Together with their teacher, they analyzed the basic social structure in relation to each sub-culture.

Near the conclusion of the program, the students designed a model society to test their perceptions of societal organization. This model society was put into effect under parental supervision.

Metropolitan Cultural Alliance - "The American Experience"

This program is organized into six five-week long program areas. The following six participating cultural institutions will be responsible for a five week program area which it will repeat six times:

1. Museum of Fine Arts
2. Museum of Transportation
3. Theatre Workshop Boston
4. Pocket Mime Theatre
5. Concert Dance Company
6. Stage I Theatre

One hundred and eighty sophomores and juniors will be chosen for the program. They will be broken down into sections of 30 students each, who will start off in one of the six different areas and will remain in that area throughout the 30 week program. Cultural program planning and staff development will be required to assure continuity between areas for each section, and to assure match up between the program areas and the school curriculum over the duration.

Examples of the program areas include:
The MUSEUM OF FINE ARTS proposes to utilize its collection of American paintings, artifacts, prints, and photographs as well as its collection of American rooms of various periods as resources for On Being Sixteen in America.

The Program will focus on functional and artistic crafts learned by 18th century teenagers. Students will become familiar with the MFA's collections, select an area of interest and pursue it by:

1. Researching background information relating to the craft-- where was it done, who did it, what materials were used, what tools;
2. Observing actual artifacts from the collections;
3. Learning the craft themselves using contemporary materials and tools.

Areas of interest supported by the collections are:

1. Quilting;
2. Silversmithing;
3. Caligraphy, graphics;
4. Portrait painting;
5. Weaving and candle crafts.

The MFA collections and spaces will also be available to other participating groups. For example, the Museum of Transportation will utilize its collection of photographs related to transportation.

The MUSEUM OF TRANSPORTATION proposes a program called A Day in the Life of an American Sixteen Year Old. The focus will be on where she/he goes, what she/he does, and the amount of time taken in a teenager's day in 1880, 1930, and 1975. Participants will use resources available in the city to assemble data, and try to put together a composite picture presenting their sense of the meaning of the data to the whole group. Depending on progress of further planning, the data which will include newspapers, maps, diaries, books, photographs, paintings, and statistical data, could either be assembled in one place and be used by the participants or it could remain in various locations in the city (the library, museums, courtrooms, or archives.) and participants could scan the city in search of the raw materials to come back only in the final sessions for summary work. In either case, the Museum would prepare preliminary and follow up materials that will be used in schools prior to and following the MUSEUM OF TRANSPORTATION experience. The objective of the program is to increase students' ability to understand the factors that contribute to the quality of life in the city and its suburbs, to understand why and how change has taken place, and to analyze better their own life styles.

Model Scheduling Option

The following is an outline of one alternative scheduling option. As with most alternative programs, flexible scheduling can take place.

Pre-planning phase

This phase is crucial to the development of any of the METROPATHWAYS program, since the scheduling plan requires significant roles for all the involved participants. The processes include:

Selecting schools, teachers, and students;

Development of program and procedures;

Selection and development of curricula options;

Setting of goals and objectives;

Role clarification;

Minority group involvement in both planning and evaluation procedures;

Resource and materials development specially tailored for curricula being offered;

Auxiliary personnel identified and brought into planning process;

Dissemination of information about planned program to non-participating teachers at home schools, to local communities, to students;

Structure students into planning process;

Development of alternative site and transportation routes;

Development of program options, including personnel, for program phases;

Operational procedures outlined, such as options for evaluation process.

Phase I: Six Weeks Home Schools

As an illustration, using hypothetical numbers and structure, the home school phase would involve 25 students from each of the METROPATHWAYS school district, representing a racial and ethnic cross-section of the SMSA student population.

Staffing and auxiliary personnel will be composed so that they reflect student needs: this is particularly important for linguistic minorities.

Some personnel should therefore be bilingual. Participating students will follow regular school schedule, except for four periods per week, when they will meet with their home school teacher team leader, two interns, and appropriate auxiliary personnel. During these sessions students will:

Receive an orientation to program;

Plan individually and in groups for procedures that will be followed;

Meet with other participant school students and staff;

Research into local community as it applies to course content;

Receive human relations training in preparation for alternative site phase;

Begin an overview of course content, using media materials and text-books, including initial meetings with auxiliary personnel.

During this phase, teachers will:

Continue to develop resource "contacts" for use in program;

Meet with home school teachers in order to structure alternative site curriculum to cover all required areas;

Meet and plan with other teachers, team-leaders and staff from other participating schools;

Develop alternative sites;

Disseminate information to local community;

Counsel participant students in home school.

Phase II: Six Weeks Alternative Site

In this phase, an alternative site, either in the city or the suburbs, will be utilized. The participant schools will send students to an alternative site previously developed by staff and auxiliary personnel. A model staff will total 4 teacher team leaders, 8 interns and auxiliary personnel, such as community workers from the home districts, or business and industry personnel, depending on staff and student needs. Again, such auxiliary personnel should reflect student composition.

In preparation for this phase, staff will have been developing a curriculum which will meet the needs of students as well as state requirements for subject areas. Heavy emphasis will be placed on basic skills areas, human relations training and learning packets designed for course content.

Roles: the roles of staff, interns, and auxiliary personnel must be flexible enough to include activities in counseling, resource development, team-teaching across disciplines, human relations expertise, organizational management, curriculum design, and use of city resources.

During this phase, students will:

Receive individualized instruction in areas of greatest student need;

Participate in short, sampling internships to "try out" later options;

Receive support services, such as counselling;

Use city resources as applicable to course content;

Use auxiliary personnel as facilitators and resource contacts as well as "role models" who represent student concerns and needs;

Form student investigatory teams to research according to course content;

Participate in Cross-tutoring programs with other students.

Phase III: Six Weeks Learning Option

In Phase III, students will negotiate with alternative staff to plan individual learning programs, Such a tailored program must include some time spent at the alternative site for regular classwork and individualized help, but will also include time at the student's learning site. Individual need will determine the time spent at each site.

Staff will continue to provide support services, such as counseling and human relations, but will also act as monitors and evaluators of the students' performance. If students wish to change their options, they will renegotiate with staff at the alternative site. Staff will work closely with personnel at the students' learning site, as well as auxiliary personnel.

At the conclusion of Phase III, all students and staff will return to their home schools.

Phase IV: One Semester Follow-up

Meetings of the METROPATHWAYS groups will continue as in Phase I, since staff and students should have developed a close working relationship in previous phases. Students should be provided with support services in order to "mainstream" their METROPATHWAYS experiences. Students and staff will contribute to the evaluation process which will continue during the semester.

Suggested METROPATHWAYS Transportation Modules

There are four MBTA routes and one railroad presently under consideration as METROPATHWAYS modules: The MBTA Orange Line/Massachusetts Avenue Line; Boston and Maine Railroad, MBTA Red Line; MBTA Blue Line;and MBTA Green Line.

VIII-1 lists the Boston communities and the suburbs serviced by these lines, the towns adjacent to these communities, and the areas to be served by the future extension of these lines. This table indicates the geographic breadth of the METROPATHWAYS program and illustrates one of its objectives, to increase student mobility. The variety of persons living in the directly served communities, adjacent towns and Boston neighborhoods indicates the potential mix of students with access to the program. The participation of students from a cross-section of this population would meet the program's major objective: to provide multiple opportunities for students of different backgrounds, aptitudes, and interests to interact together in a variety of learning experiences.

Suggested Module I: Orange Line/Massachusetts Avenue Line

The Orange Line/Massachusetts Avenue MBTA transit line travels through seven Boston communities and four suburban towns with a total public high school enrollment of 17,557 in 1972-1973; 4,519 or 35.7% of whom are non-white. As with the other transit lines, this line traverses communities with diverse social and economic characteristics; it includes the Boston communities with the largest concentrations of non-white students, Washington Park and South End, and the suburban towns of Arlington, Everett and Lexington with relatively small non-white enrollments. Similarly, these ten communities represent a wide median income span from a low of $6,122 in the South End to a high of $17,558 in Lexington.

There are fourteen suburban towns adjacent to this transit line and accessible to it through short-haul bussing. There is significant variation: Chelsea is the community with highest percentage of non-white high school students (65.7%) while Revere had the smallest (0.1%). The median incomes of these fourteen towns are also wide ranging; Chelsea has the smallest median income with $8,973 and Lincoln the highest with $17,361.

Suggested Module II: Boston and Maine Railroad

The Boston and Maine Railroad runs north from downtown or Central, in Boston and traverses four suburban communities whose total public high school enrollment was 8,908 in 1972-73; 175 or 2.0% of whom were non-white. All of these suburban school districts have small percentages of non-white students and median incomes higher than the Boston city median. The lowest median income of these communities is $10,204 in Malden, and the highest, $13,434 in Reading. This compares with $8,734 for Central in Boston and $11,307 as a city wide median.

This module is accessible to twelve adjacent towns through short-haul bussing. In general, the non-white percentage of high school students in adjacent areas was less than 2% with the exception of Cambridge, Everett, and Medford. The median incomes of these towns are less than SMSA median with the exception of Winchester and Lynnfield.

Suggested Module III: Red Line

The MBTA Red Line services five Boston Communities and two suburbs that

METROPOLITAN PLANNING PROJECT TABLE VIII-1

SUGGESTED METROPATHWAYS MODULES

MODULE I: ORANGE LINE/MASSACHUSETTS AVENUE

School Districts Serviced by Present and Planned Mass Transit Lines and School Districts Adjacent to Those Communities

Boston Communities and Suburbs Presently Served	School Districts Adjacent To Towns Now Served	Planned MBTA Expansion	School Districts Adjacent To "Expansion" Towns
ORANGE LINE Boston communities: Central Charlestown Roslindale South End Washington Park Everett AND MASSACHUSETTS AVENUE LINE Arlington Boston communities: Back Bay-Beacon Hill Fenway-Kenmore South End Washington Park Cambridge Lexington	Bedford Belmont Burlington Chelsea Concord Lincoln Malden Medford Revere Somerville Sudbury Waltham Winchester Woburn	Malden Melrose Needham Reading Wakefield	Dedham Dover Lynnfield Medford Newton Saugus Sherborn Stoneham Wayland Wellesley Westwood Wilmington Woburn

Sources: See last page of table

SUGGESTED METROPATHWAYS MODULES

MODULE II: BOSTON & MAINE RAILROAD

School Districts Serviced by Present and Planned Mass Transit Lines and School Districts Adjacent to Those Communities

Boston Communities and Suburbs Presently Served	School Districts Adjacent To Towns Now Served	Planned B&M RR Expansion	School Districts Adjacent To "Expansion" Towns
BOSTON & MAINE RAILROAD Boston communities: Central Malden Melrose Reading Wakefield	Cambridge Everett Lynn Lynnfield Medford No. Reading Revere Saugus Stoneham Wilmington Winchester Woburn		

Sources: See last page of table

METROPOLITAN PLANNING PROJECT TABLE VIII-1--continued/3

SUGGESTED METROPATHWAYS MODULES

MODULE III: RED LINE

School Districts Serviced by Present and Planned Mass Transit Lines and School Districts Adjacent to Those Communities

Boston Communities and Suburbs Presently Served	School Districts Adjacent To Towns Now Served	Planned MBTA Expansion	School Districts Adjacent To "Expansion" Towns
RED LINE			
Boston communities: Back Bay-Beacon Hill Central Dorchester Mattapan-Franklin South Boston Cambridge Quincy	Arlington Belmont Braintree Milton Somerville Watertown	Arlington Braintree Lexington Somerville Weymouth	Bedford Belmont Burlington Hingham Holbrook Lincoln Medford Randolph Waltham Winchester Woburn

Sources: See last page of table

SUGGESTED METROPATHWAYS MODULES

MODULE IV: BLUE LINE

School Districts Serviced by Present and Planned Mass Transit Lines and School Districts Adjacent to Those Communities

Boston Communities and Suburbs Presently Served	School Districts Adjacent To Towns Now Served	Planned MBTA Expansion	School Districts Adjacent To "Expansion" Towns
BLUE LINE			
Boston communities:	Cambridge	Lynn	Marblehead
Back Bay-Beacon Hill	Chelsea		Nahant
Central	Everett		Peabody
East Boston	Malden		Salem
Revere	Saugus		Swampscott
	Winthrop		

Sources: See last page of table

METROPOLITAN PLANNING PROJECT TABLE VIII-1 --continued/5

SUGGESTED METROPATHWAYS MODULES

MODULE V: GREEN LINE

School Districts Serviced by Present and Planned Mass Transit Lines and School Districts Adjacent to Those Communities

Boston Communities and Suburbs Presently Served	School Districts Adjacent To Towns Now Served	Planned MBTA Expansion	School Districts Adjacent To "Expansion" Towns
GREEN LINE Boston communities: Allston-Brighton Back Bay-Beacon Hill Central Fenway-Kenmore Jamaica Plain-Parker Hill Roslindale Brookline Newton	Cambridge Framingham Natick Needham Waltham Watertown Wayland Wellesley Weston	NONE	

Sources: Boston and Maine Corporation, Passenger Train Schedules, Timetable No. 20, Revised 3/4/74.
Boston Redevelopment Authority (BRA), telephone conversation with Ed Bailey, Transportation Planner, 1974.
Commonwealth of Massachusetts, Executive Office of Transportation and Construction and the Massachusetts Bay Transit Authority (MBTA), Ten Year Transit Development Program 1974-1983, June 10, 1974 (Draft).
Massachusetts Bay Transit Authority (MBTA), System Route Map, July 1967.

together exhibit a wide range of social and economic characteristics. The combined public high school student enrollment of these communities was 2,516 in 1972-1973; 81 or 3.2% of whom were non-white. The median family incomes of these communities span a wide range from a low of $8,704 in South Boston to a high of $14,534 in Back Bay-Beacon Hill. Six communities have access to the Red Line via short-haul bussing; there were 12,564 high school students in these communities, 667 or 5.3% of whom were non-white.

Suggested Module IV: Blue Line

The MBTA Blue Line Module services the smallest public high school student population of the five modules, as it crosses only three Boston communities and one suburb; the combined high school student enrollment of these communities is 4,048 in 1972-73; 153 or 3.8% of whom are non-white. As with the communities along the Red Line, the non-white student enrollment is relatively low in at least two of the communities, 4.7% in East Boston and 0.19% in Revere, while significantly higher in the two other communities, 23.7% in Central and 27.0% in Back Bay-Beacon Hill. The median incomes of these communities span a wide range from a low of $8,620 in East Boston to a high of $14,534 in Back Bay-Beacon Hill. The Blue Line is accessible to six suburban communities via short-haul bussing; there are 12,564 high school students in these communities, 667 or 5.3% of whom are non-white. The largest percentages of non-white students are in the towns of Cambridge and Chelsea, the smallest in Winthrop.

Suggested Module V: Green Line

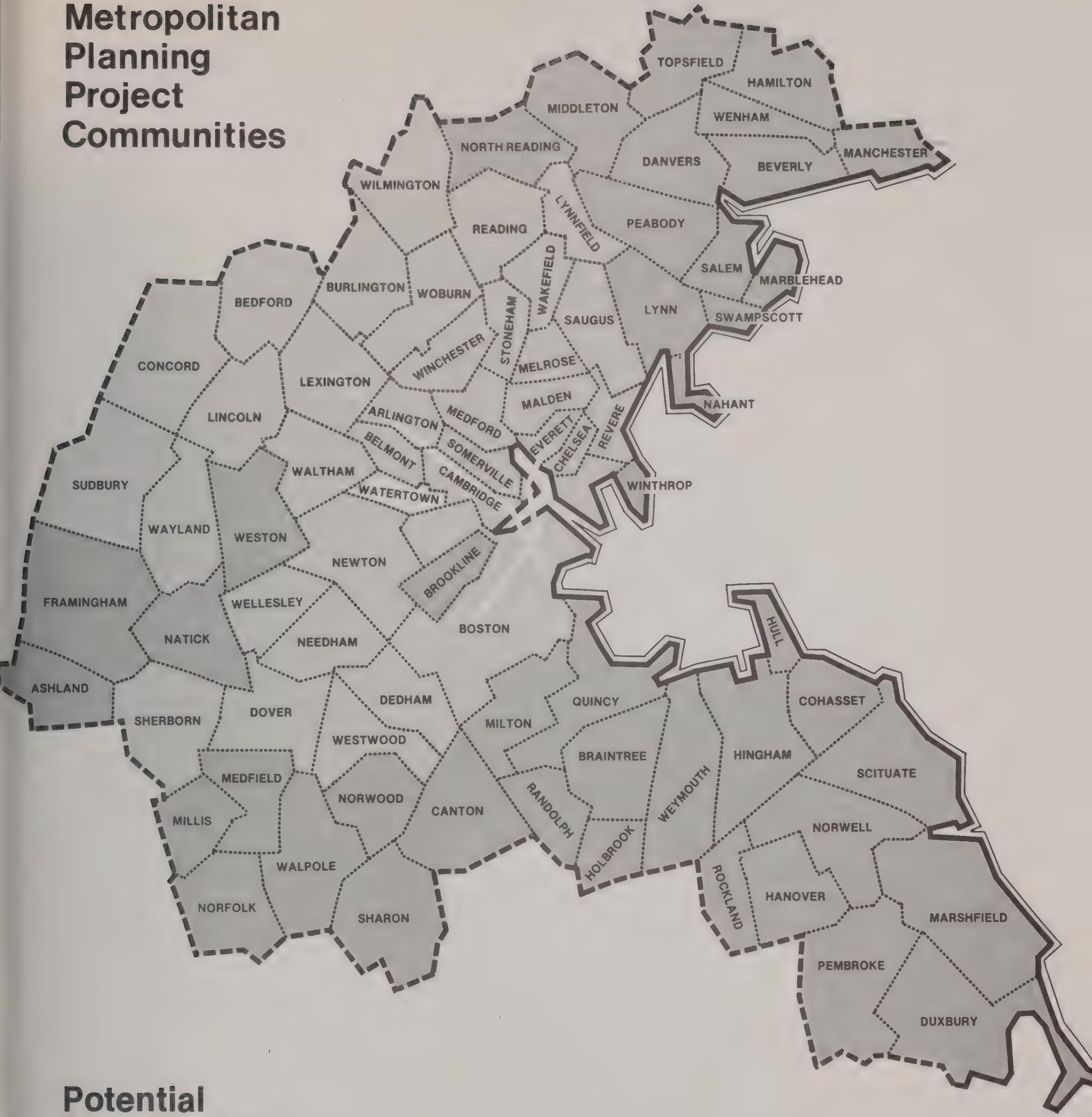
The MBTA Green Line runs through six Boston communities and two suburbs whose combined public high school enrollment totals 12,434 in 1973-73; 1,484 or 11.9% of whom are non-white. There is a great variation, however, among the communities' non-white high school enrollment, ranging from a high of 62.3% in the Fenway-Kenmore to a low of 2.6% in Newton, Within that range, two other communities have less than 10% non-white high school enrollment while the four others have between 21% and 43%. The median incomes of these eight communities also exhibit a wide span; the lowest is $7,232 in Fenway-Kenmore, while the highest is $15,381 in Newton.

There are nine suburban communities adjacent to the Green Line Module which are accessible to the transit line by short-haul bussing. The adjacent community with the largest percentage of non-white high school students is Cambridge with 16.2% while the next highest is Wellesley with 2.6%. The median incomes of these communities also cover a wide range from a low of $9,815 in Cambridge to $23,539 in Weston.

Implications for Communities

Volume II, RESOURCES FOR IMPLEMENTATION, PART ONE: PROGRAM IMPLEMENTATION: 1973-74 TO 1982-83, shows the possible school district involvement with METROPATHWAYS by each of the five potential modules outlined above. Arlington is an example of a community that is currently being served by the Orange Line (Module I) but will also be served by the proposed expansion of the Red Line (Module III). Boston is an example of a school system served by all five potential modules and Cambridge an example of a community served directly by the Orange Line (Module II) and the Red Line (Module III) while also being adjacent to the Boston and Maine Railroad (Module II), the Blue Line (Module IV) and the Green Line (Module V). A summary of all five potential modules as shown in Volume II shows that the potential student enrollment of METROPATHWAYS could begin with 100 students in 1974-75 and reach a possible population of 89,375 by 1982-83. The maps which follow show the potential geographic configurations possible with METROPATHWAYS. An example of specific transportation module planning is found in Exhibits VIII-1 and VIII-2.

Metropolitan Planning Project Communities



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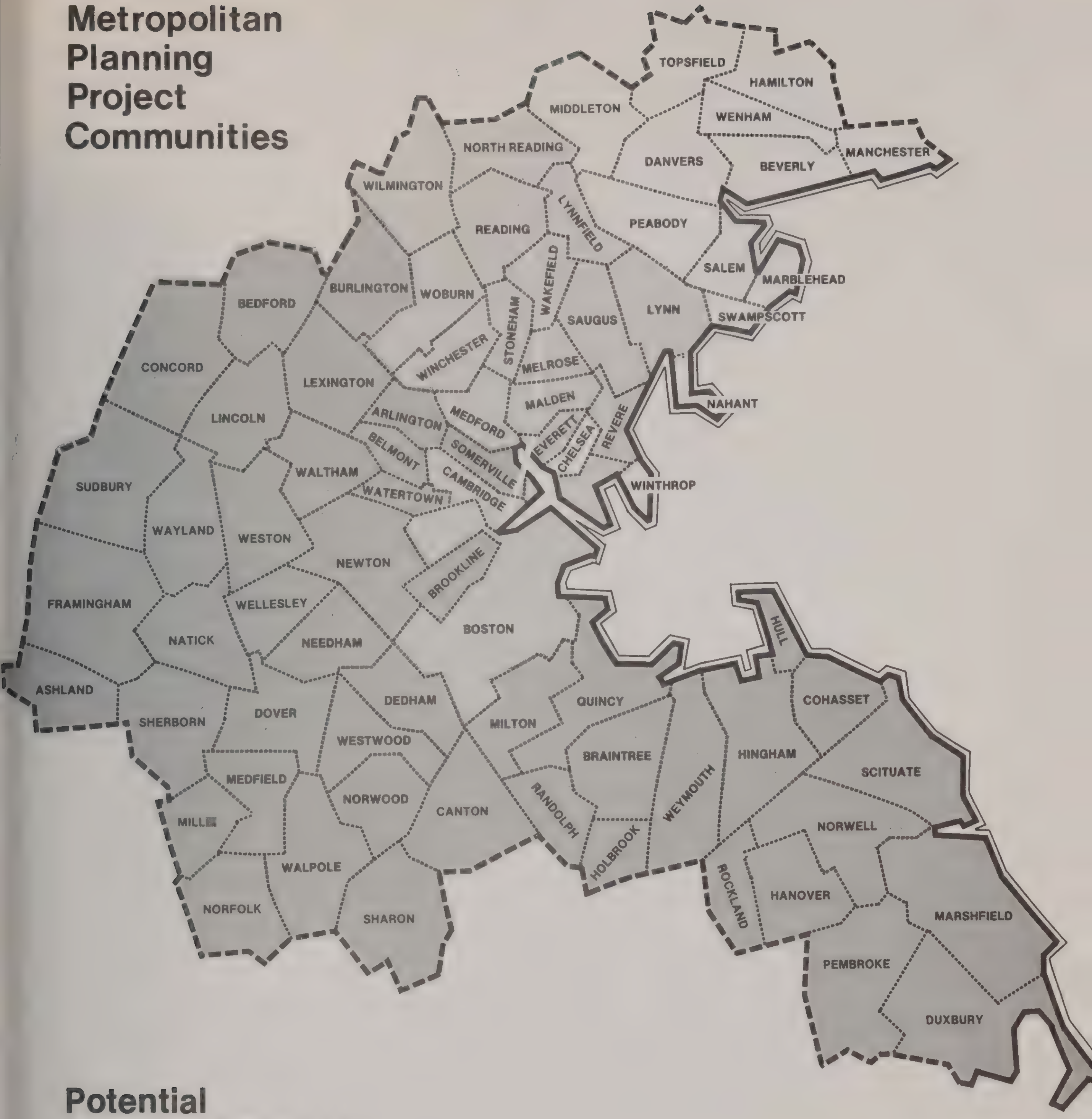
SHARON
MARSHFIELD
PEMBROKE
DUXBURY

Potential METROPATHWAY Module I

ORANGE LINE / MASS. AVE.

▨ METROPATHWAY Orange Line/Mass. Ave. Module School District

Metropolitan Planning Project Communities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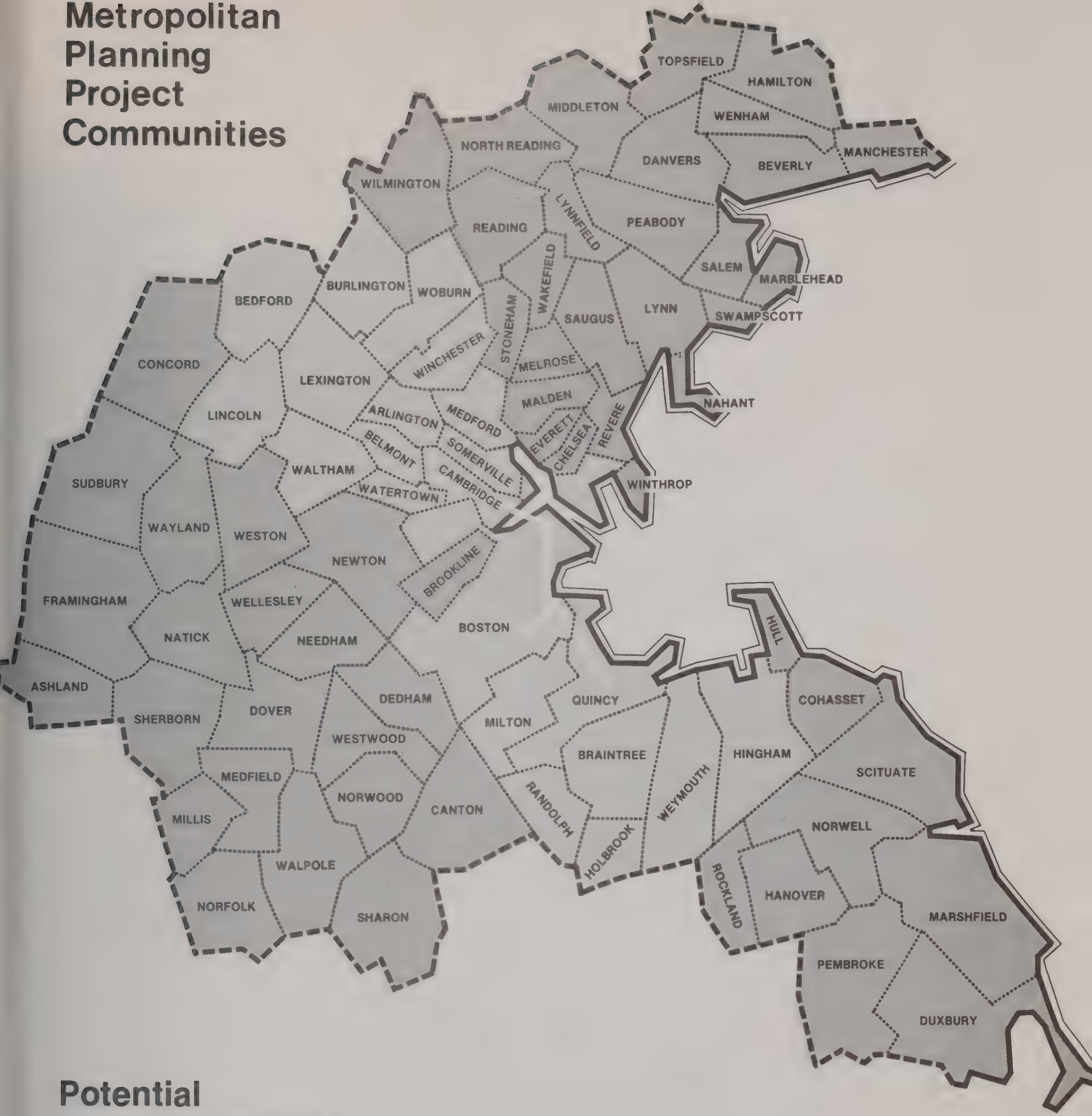
Potential METROPATHWAY Module 2

BOSTON & MAINE RAILROAD

▨ METROPATHWAY B&M Railroad Module School District

Metropolitan Planning Project Communities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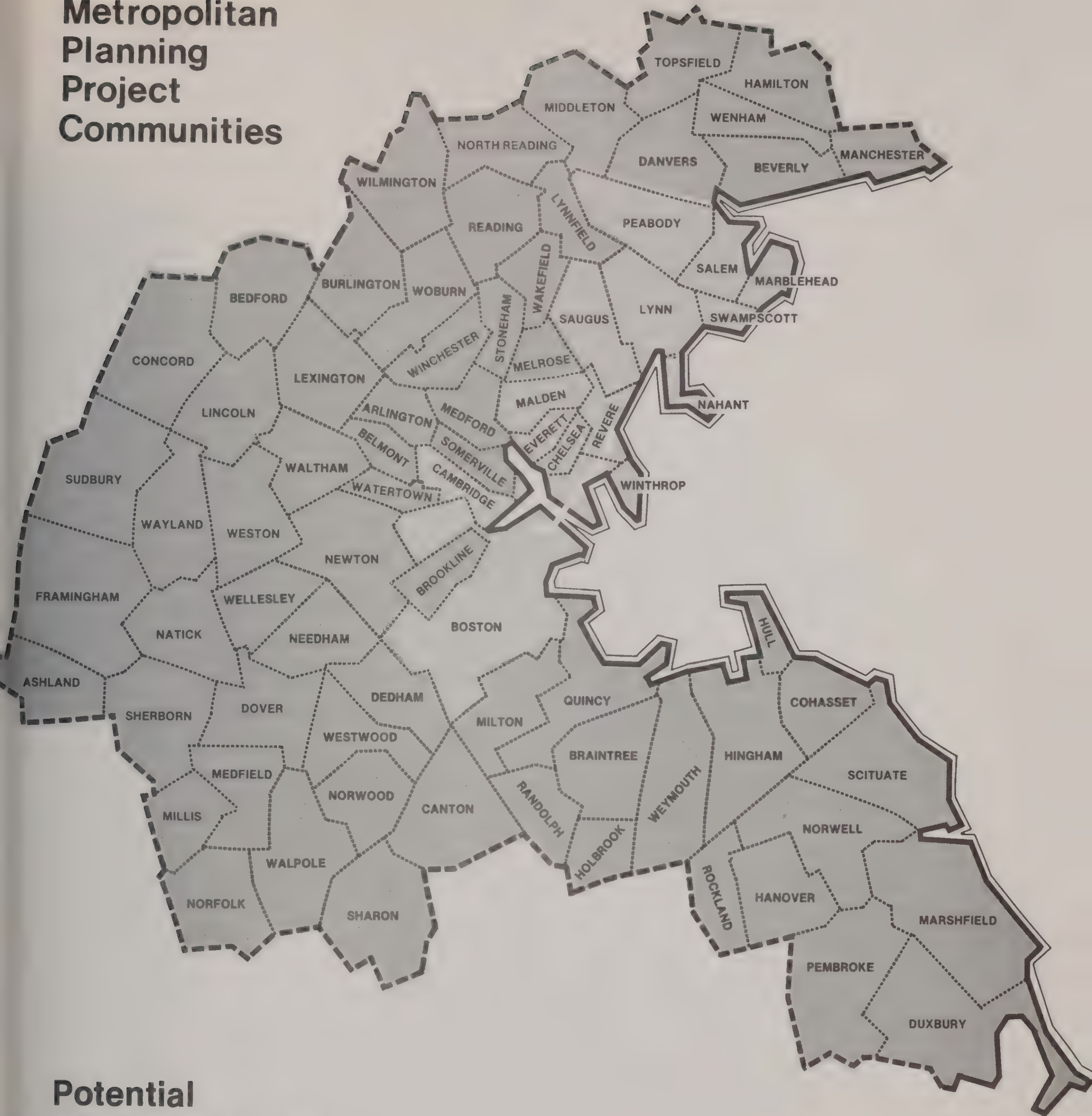
Potential METROPATHWAY Module 3

RED LINE

☐ METROPATHWAY Red Line Module School District

Metropolitan Planning Project Communities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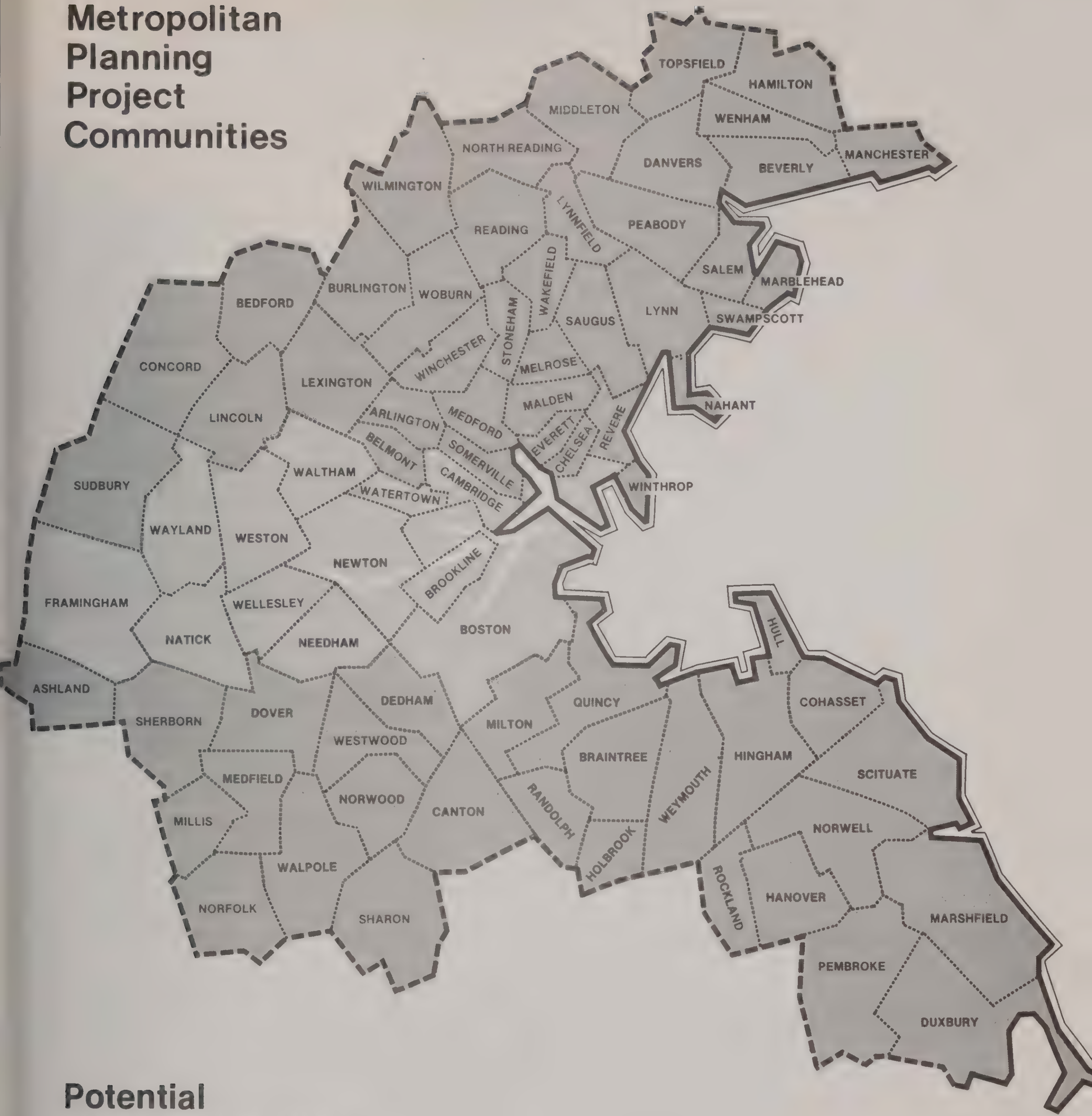
Potential METROPATHWAY Module 4

BLUE LINE

▨ METROPATHWAY Blue Line Module School District

Metropolitan Planning Project Communities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SHARON
MARSHFIELD
PEMBROKE
DUXBURY

Potential METROPATHWAY Module 5

GREEN LINE

☐ METROPATHWAY Green Line Module School District

EXHIBIT VIII-1

TRANSPORTATION LOGISTICS SERVING THE ANTICIPATED METROPATHWAYS SCHOOL DISTRICTS IN MODULE V

A. Primary transportation connections to Green Line (Riverside route) from suburban districts.

Brookline	MBTA Green Line (Riverside, B.C., Arborway, Cleveland Circle routes)
Cambridge	MBTA Red Line to Park Sq. or #1 bus to Auditorium and Symphony stations
Framingham	MBTA #531 bus to Woodland Station - 30 minutes
Lexington	MBTA #84-528 and #77-529 buses to Red Line Harvard Sq. to Park Street. Lex. Ctr. to Har. Sq.-37 minutes
Lincoln	Boston & Main Railroad to North Station, or Vermont Transit Co. Inc., or Englander Coach Lines, Inc. to Park Square area
Natick	MBTA #531 bus to Woodland station
Needham	MBTA #532 bus to Newton Highlands - 18 minutes
Newton	MBTA #532 bus from Watertown Sq. to Newton Highlands MBTA #531 bus from Newton Corner to Woodland station
Sudbury	Boston & Maine Railroad to North Station, Carlstrom Bus Lines, Inc., The Grehound Corp., The Boston-Worcester Corp., Ritchie Bus Lines, Inc. to Park Square area
Wellesley	MBTA #531 bus to Woodland station
Weston	Ritchie Bus Lines, Inc., or the Boston-Worcester Corp. to Park Square area

B. Orange Line from Dudley station to Washington Street - 10 minutes
Red Line connects Orange and Green Lines between Washington Street and Park Street

C. Other feeding lines to the Green Line's Riverside-Park Street route:

MBTA #532 bus - Needham to Watertown (via Woodland)
MBTA #533 bus - Oakhill to Newton Corner (via Newton Centre)
MBTA # 60 bus - Chestnut Hill to Kenmore
MBTA # 65 bus - Brighton Ctr. to Kenmore
MBTA # 66 bus - Allston to Dudley (via Brookline Village)

SOURCE: Operations Office, MBTA, 1973

EXHIBIT VIII-2

RUN TIME AND STOPS ON THE RIVERSIDE MBTA LINE (GREEN LINE D)

STOPS	MAXIMUM RUN TIMES	
	Morning Rush	Evening Rush 3:30-6:30
Riverside		43 Minutes
Woodland		
Waban		
Eliot		
Newton Highlands		
Newton Center		
Chestnut Hill		
Reservoir	17 Minutes	25 Minutes
Beaconsfield		
Brookline Hills		
Brookline Village		
Longwood		
Fenway Park	29 Minutes	10 Minutes
Kenmore		
Auditorium		
Copley		
Arlington		
Boylston		
Park Street	38 Minutes	
TOTAL CUMULATIVE RUNNING TIME	38 Minutes	43 Minutes

Minimum Run Time Between Riverside and Park Street is About 34 Minutes

SOURCE: Operations Office, MBTA, 1973

METROPAIRWAYS: A Program for Elementary and Junior High School Students

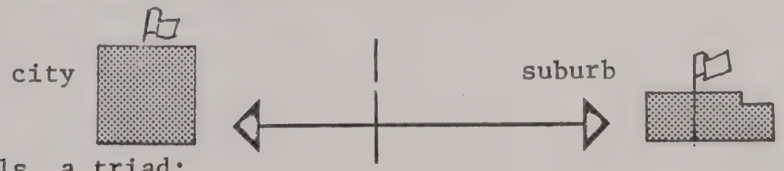
Introduction

METROPAIRWAYS provides a means for drawing two or three schools into a small voluntary collaborative. The collaborative is arranged not by edict, but by the interaction of local school people and parents. The schools involved would be primarily elementary schools; however, the pairing of middle or junior high schools is encouraged. Each METROPAIRWAY collaborative forms an expanded "neighborhood" which reaches across school district lines and across barriers of racial, cultural and socio-economic differences. In helping to accomplish the Metropolitan Planning Project's goals of reducing minority student isolation, the schools involved would be located in Boston or in a suburb with urban characteristics, with one or more of the suburban districts. At least one of the schools involved should have a minority student enrollment of over 4%, however, each program should have at least 20% minority group participants so that the reduction of isolation can take place. In addition pairing between schools where the socio-economic or ethnic makeup are so different would tend to reduce isolation caused by these factors. For example, the benefits to children of both districts to form pairings of schools in Winchester and Chelsea are apparent.

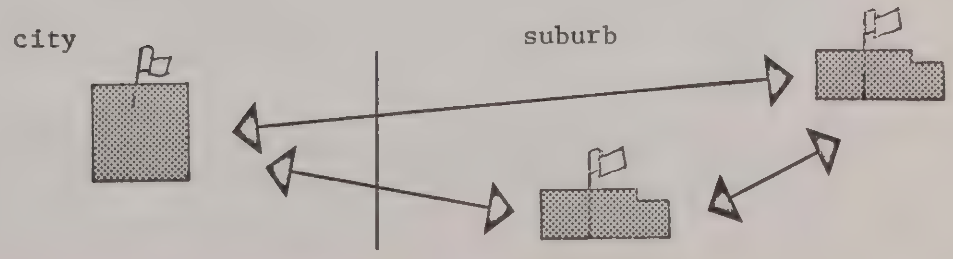
Program Concept

The idea of METROPAIRWAYS is not new. It has been used in various ways in a number of desegregation modes in the country, variously termed the Cluster plan, Princeton plan or Sister School plan. But it has special possibilities for the Boston Metropolitan Area since it is based in a voluntary context and has the experience of METCO, the voluntary state supported interdistrict transfer plan, to build upon.

A METROPAIRWAY may be two schools, a pair:



or three schools, a triad:



The idea for METROPAIRWAYS came out of concerns expressed by participants in the Community Participation meetings and from the workshops conducted by the Metropolitan Planning Project. The major concerns included that there is little interest in city-suburb educational cooperation unless educational improvement is the outcome. City parents voiced strong desire that their children be well grounded in the basic skills of reading, language, and the mathematics. They did not want field trips and alternative programs to interfere with these objectives. The point was eloquently made by members of the Spanish-speaking community that the needs of the Hispanic students were to learn to use English with facility while at the same time learning the subject matter necessary for success in the mainland mainstream. Suburban parents wanted their children to take part in enrichment programs away from the school if it supported and expanded the basic learning; both urban and suburban parents generally were not in favor of bussing elementary students out of the neighborhood for protracted programs. But bussing did not appear to be the issue. The issue seemed to be a desire for quality education, and health and safety; parents of both the city and suburbs voiced rigorous support of having immediate and direct influence on the schools which their children attended. Although minority parents recognized the term "neighborhood school" as a segregation code word, the neighborhood concept appeared to be deeply rooted in both city and suburban groups; parents and teachers pointed out the powerful influence of adult attitudes on children. The feeling was expressed that whatever effort was made with children, a corresponding effort must be made with adults.

The METROPAIRWAYS program meets these concerns in several ways:

1. A pair of triad will have a Metropolitan Education Program Board made up of parents and school people. This Program Board will define the needs of quality education to eliminate racial and ethnic isolation as the members view it.

2. There will be an opportunity for each of the schools involved to develop a special emphasis to enhance the quality of education and to serve as an incentive to attract students from the other schools. In a triad, for example, one of the suburban schools might become a basic skills center with high level programs, materials and highly trained teachers. The city school might become a science school with the learning equipment, spaces and talent available to make it attractive. The third school might become an ethnic cultural heritage and arts center providing a variety of opportunities under special teachers and community talent, including a center for bilingual education where both foreign speaking and English speaking students can learn from each other.

3. The Program Board might instead develop a program on a "third site" to which all schools can send students.

4. The only transportation provided would be at the request of parents, since the entire program is voluntary, both on the part of the individual parents and the school districts involved.

5. Opportunities for the staffs and parents of the three schools to take part in developmental programs to help them understand the pluralistic values of the area and the needs of a variety of children in a multi-ethnic school situation.

In addition to meeting these concerns, the METROPAIRWAYS approach takes into consideration the need for full, step-by-step involvement of all concerned: the parents, the teachers, the Principal, the Superintendent and the students. It also advances the position that minority influence must be equitable to majority influence in the planning and development of METROPAIRWAYS programs. METROPAIRWAYS is a means for reducing socio-economic isolation as well as ethnic and racial isolation.

In summary, METROPAIRWAYS is a program structure under which elementary schools and middle schools voluntarily form pair or triad collaboratives across district boundaries in ways that will enhance the reduction of isolation caused by ethnic, socio-economic and social characteristics. These pairs or triads of schools are termed METROPAIRWAY.

METROPAIRWAYS: A Process

To promote the formation of the METROPAIRWAYS, a Coordinator, with experience in community organization and multi-racial education, will begin by suggesting possible pairs or triads to school administrators or community groups.

The Coordinator will explore, with the Superintendent of the districts which might be involved, the possibilities and conditions of involvement of schools in a metropolitan education program. The end of such exploration would be the approval of the School Committee for participation of one or more schools; then he would meet with the Principals, and subsequently the staffs of two or three schools which have been designated for possible participation. The purpose of such meetings would be to encourage each school staff to assess the potentials of interacting with one or two other schools in a cross-cultural, cross-racial basis. The strengths of each school in terms of programs, facilities, specialists, and faculty will be estimated by the Coordinator with the Principal's help. Programs on third sites, such as a METRO ETHNIC RESOURCE CENTER will be evaluated. Another purpose will be to gain approval and to establish a time for a joint meeting of the two or three faculties or their representatives to explore ways of interacting.

Parent groups of each of the schools will meet during which time the principal of the school would be involved and provide positive leadership. The parent groups will assess the educational needs of their children as related to possible interaction with other children of other schools. The Coordinator will encourage the formation of a joint parent group of the two or three schools. This joint group will pursue ideas for both student and adult interaction, and examine and plan ways for beginning. Subsequently, combined staff-parent meetings will take place. At this stage, the faculties and the parent groups will be encouraged to consider participating in developmental programs related to parent and staff effectiveness in dealing with educational improvement in a multi-racial, multi-ethnic situation as a support service for the participants.

The follow-up joint parent meeting will be a combined staff and parents meeting. The outcome of this meeting, it is hoped, will be a METROPAIRWAY Metropolitan Program Board of parents and teachers representing each school. The composition of the METROPAIRWAY Program Board should also reflect strong minority voice; preferably one-half the membership. The Board will elect its own leadership and set its own procedures. It would be the Board's job with the help of the Coordinator to gather ideas from the parents, faculty groups and individuals; then, after studying, analyzing, modifying and assessing feasibility, to recommend certain programs for planning and implementation to the Principals. If the Principals approve such programs, the Coordinator will provide assistance for the Board in writing proposals for incentive funds to aid in planning and piloting the programs. The Coordinator will also assist the Board in establishing a communications set-up for keeping all informed through newsletters, student newspapers, and bulletins.

Potential Program Sequence

A program sequence might include:

1. Staff and parent development programs;
2. Multi-ethnic and multi-racial curriculum development and use;
3. Staff exchanges, the scheduling of specialists;
4. Traveling exhibits, cultural displays, music, drama, art shows;
5. Parent and student visitations to each school;
6. Joint planning and participating in field trips, camping and conservation programs, local study programs of the two or three neighborhoods;
7. Development of specialized centers at different schools, i.e. school (A), a basic skills center; school (B), a science center; and school (C), a language center, including a bilingual center;
8. Development of third site centers for all school children to participate in their programs;

Potential Curriculum Options

Several of the Design of Learning Environment projects tested during the planning year are particularly relevant to the proposed METROPAIRWAY. Moreover, the METRO ETHNIC HERITAGE CENTERS discussed shortly, will provide curricula and resources for METROPAIRWAYS. The projects described below clearly illustrate programs which would be typical METROPAIRWAYS options for elementary and junior high school students:

Metropolitan Cultural Alliance (MCA)
Elma Lewis School of Fine Arts Mobile Museum (ELSFA)
Cooperative Seminars Program
Roxbury-Dorchester Communities as An Environmental Learning Laboratory
Storefront Video Project
METRO ETHNIC HERITAGE RESOURCE CENTER

Metropolitan Cultural Alliance

The MCA developed several programs for students in the communities of Boston, Burlington, Randolph, Stoneham, Waltham, and Watertown. In the past, schools in the Greater Boston area have used the resources of many cultural institutions and performing groups to provide enrichment experiences for their students but most of these were designed as one-time field trips to an institution or a single performance by a company at the school. In collaboration with a number of cultural institutions, such as the Museum of Fine Arts, the Museum of Transportation, Pocket Mime, Stage One Theatre, the Children's Museum, and Concert Dance, MCA developed curriculum packages that provided for a more extensive and systematic use of these institutions' resources. Eight of these curriculum packages were geared for elementary and middle school-aged children. Examples of these programs are:

1. "Waterways" - a program developed by the New England Aquarium, Boston Science Museum, and the Children's Museum, to provide students an opportunity to study the chemical properties, animal life, and ecology of the Charles River, the Atlantic Ocean, and Wards Pond.

2. "Americans" - a program developed by the Pocket Mime Theatre, in which students learned mime movement and technique and observed the gestures, poses, and rhythms of occupational and ethnic groups.

3. "The Moving Game" - a program developed by the Museum of Transportation in which sixth grade students utilized various types of transportation devices (bus, minivan, car, subway, boat) to reach and explore airports, bus stations, factories, harbors, etc.

Moblie Museum

The Elma Lewis School of Fine Arts, Inc. (ELSFA) developed a cross-cultural program involving schools in Brookline and Weston. Initially, the ELSFA staff presented a series of seminars and workshops to teachers, parents, and students in these districts. The purpose of these seminars was to orient these groups to the personnel and curriculum resources of the ELSFA in the areas of Afro-American, West Indian, and African music, drama, art, dance, and costuming. As a result of these workshops, teachers made use of ELSFA resources whenever they were appropriate. For example, when a class was studying communication, a person from ELSFA who was an expert on African drums was utilized. ELSFA developed a Mobile Museum that contained exhibits of sculptures, masks, headresses, and other traditional items that are part of the African way of life. This museum, which also contained a number of audio-visual aides, spent six weeks at each of the participating school districts. The exhibits in this mobile museum were used by teachers in such curriculum areas as social studies, art, music and dance.

Cooperative Seminars Program

The Cooperative Seminars Program was developed by the Cambridge Montessori School and the Federation of Boston Community Schools. It involved 20 students between the ages of nine and twelve (10 from each of the participating schools) in a twelve week seminar program. The first six weeks were spent at the Cambridge Montessori School; the last six were spent at the Highland Park Free School. Students met one day a week during this period for the following activities: academic seminars (Drama, History of Games, African Folktales, and History of the Earth), group meetings (discussions, resource sharing, and simulation games), a physical education program, and an afternoon arts program given at art resource organizations in each community. The project ended with a weekend retreat that provided students and staff the opportunity to interact and cooperate on an even closer basis and to share their learning experiences. A main objective of this program was to make use of the unique resources of the two communities involved (Cambridge and Roxbury) and to involve parents, students and teachers in the development and on-going planning and evaluation of the program.

Roxbury-Dorchester Communities as an Environmental Learning Laboratory

The Roxbury-Dorchester Community Beautification Program conducted a program for sixth and seventh grade students from Weston and Boston to develop horticultural skills and knowledge and acquire beneficial human relations skills. The participating students met at the Franklin Park Rose Garden in Boston for a six week period. Through the process of rejuvenating this garden, students acquired skills necessary for planting, preparing and maintaining a garden site. In addition to these tangible skills, they developed an introductory knowledge of plant biology, soil composition and soil care. Students also explored the problems of urban decline through question and discussion sessions. Student response to the human relations opportunities afforded by the project were evaluated through direct feedback. Such feedback was obtained via classroom discussions held in the home school the day after each project day, as well as from the discussions that informally took place during the travel time to and from the project site.

Storefront Video Project

See METROPATHWAYS Potential Curriculum Options

METRO ETHNIC HERITAGE RESOURCE CENTERS

See next Section.

Potential METROPAIRWAYS Collaboratives

The following criteria has been utilized to identify possible METROPAIRWAY schools:

1. The urban school should have an enrollment which is composed of at least 4 percent minority group students, but which is preferably greater than 50 percent minority group students. These students should come from a community whose socio-economic indicators -- median family income, educational achievement level, and occupationsl level -- are below the SMSA average figures. All METROPAIRWAYS partnerships must contain at least 20 percent minority group students.

2. The suburban school or schools should draw students from a community which:

   a. Has a median family income of $12,000 or more;
   b. Has at least 10 percent of the total population of the community which are college graduates;
   c. Has at least 10 percent of the total population of the community which are employed in professional, technical, managerial or administrative capacities; and
   d. Has a predominantly white population.

The school in the urban town will either be located in, or draw students from communities which contain schools with minority students and socio-economic characteristics similar to those of Boston; for example, Cambridge, Somerville, Everett and Chelsea. This is to assure not only reduction of isolation caused by racial and ethnic differences, but also that which was caused by socio-economic factors. The factors of income, education, and employment were used because of their availability from the 1970 Census and because they represent variables which along with the ethnic enrollment information, help to identify potentially isolated students. The school districts which appear on the basis of this data to contain appropriate suburban schools for the Coordinator to explore for possible pairing with Boston or other schools with urban characteristics are found on List VIII-One.

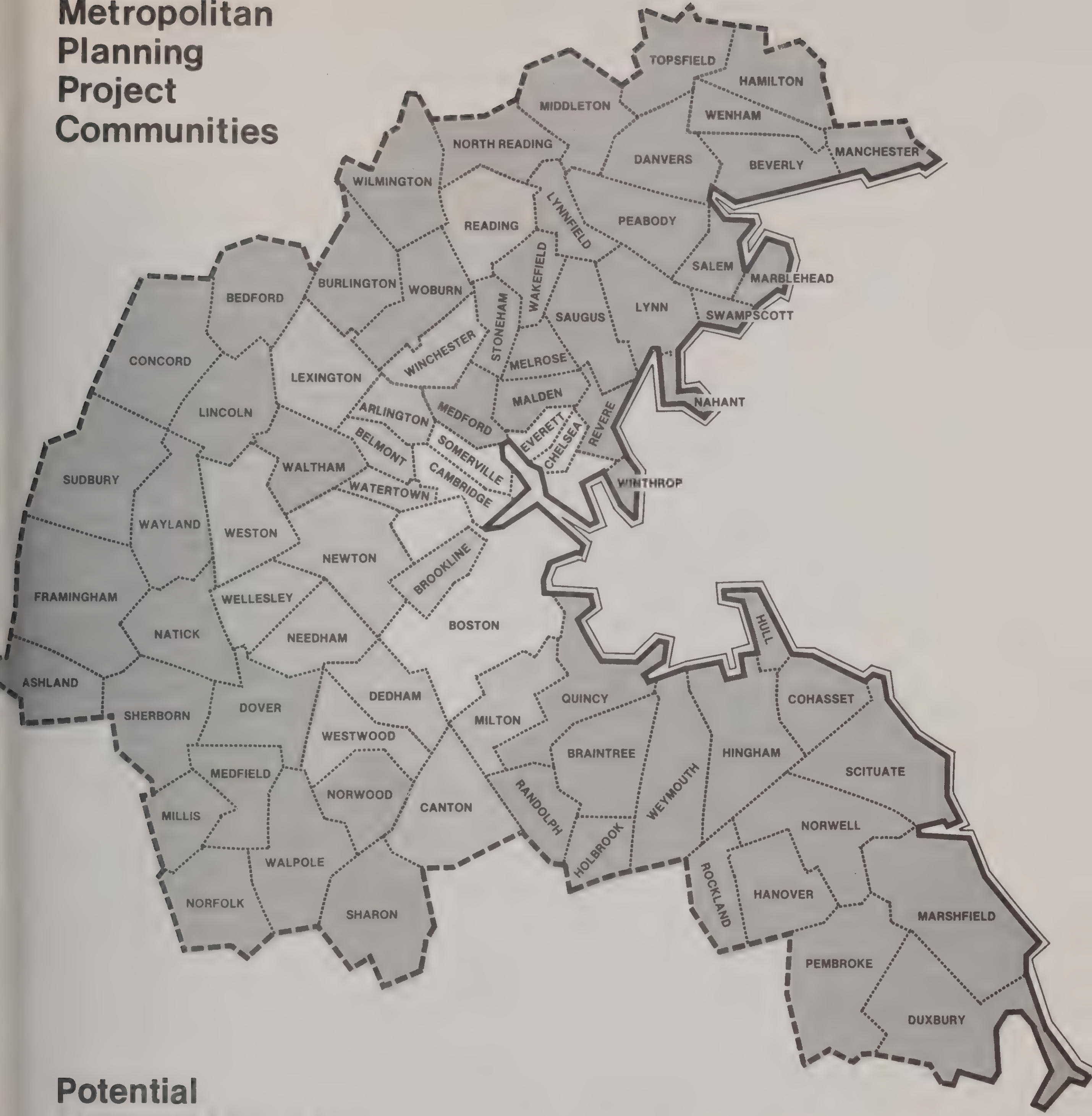
LIST VIII-One

POTENTIAL METROPAIRWAYS SCHOOL DISTRICTS

Urban Partners	Suburban Partners
Boston Cambridge Chelsea Everett Somerville	Arlington Belmont Brookline Canton Dedham Lexington Milton Needham Newton Reading Watertown Wellesley Weston Westwood Winchester

TATION 1974-75 TO 1982-83 lists each suburban school which is currently eligible to participate in a METROPAIRWAYS collaborative. It also indicates the number of students which could be enrolled in potential METROPAIRWAYS urban and suburban schools for a maximum operational year. Suburban community districts have a potential of 104 elementary and junior high schools with a student enrollment of 44,863. For urban community districts, given a 2:1 ratio of suburban to urban schools, there is a potential of 52 elementary and junior high schools with an enrollment of 22,432. The total potential METROPAIRWAYS pairs and triads could be 67,295 and 156 schools in any maximum operational year. (see Map)

Metropolitan Planning Project Communities


TOPSFIELD
HAMILTON
MIDDLETON
WENHAM
NORTH READING
DANVERS
MANCHESTER
BEVERLY
WILMINGTON
READING
LYNNFIELD
PEABODY
SALEM
MARBLEHEAD
BURLINGTON
WOBURN
WAKEFIELD
STONEHAM
SAUGUS
LYNN
SWAMPSCOTT
BEDFORD
CONCORD
WINCHESTER
MELROSE
LEXINGTON
NAHANT
LINCOLN
ARLINGTON
MEDFORD
MALDEN
EVERETT
CHELSEA
REVERE
BELMONT
SOMERVILLE
WALTHAM
SUDBURY
CAMBRIDGE
WATERTOWN
WINTHROP
WAYLAND
WESTON
NEWTON
BROOKLINE
FRAMINGHAM
WELLESLEY
NATICK
NEEDHAM
BOSTON
HULL
ASHLAND
DEDHAM
QUINCY
COHASSET
SHERBORN
DOVER
MILTON
WESTWOOD
BRAINTREE
HINGHAM
SCITUATE
MEDFIELD
WEYMOUTH
MILLIS
NORWOOD
CANTON
RANDOLPH
NORWELL
HOLBROOK
WALPOLE
ROCKLAND
HANOVER
NORFOLK
SHARON
MARSHFIELD
PEMBROKE
DUXBURY

Potential METROPAIRWAYS School Districts

▨ Suburban School Districts

☐ Urban School Districts

■ School Districts not involved

METRO ETHNIC HERITAGE RESOURCE CENTERS: A Program for all Students

Introduction

Although it is a platitude to say that all Americans are minority groups by one classification or another, it is probably a greater truism to observe that America is finally coming of age in accepting the richness of its ethnic and racial diversity. The great melting pot approach encouraged a smoothing off of minority cultural edges to produce the typical American who knew only a statistical existence. Moreover, it has long been acknowledged that total cultural homogeneity is not even a desirable goal. In cultural diversity rests the creativity of fresh ideas which keeps a nation living and growing, constantly renewing itself. The contrast is frequently made with the stagnancy of totalitarian societies where conformity is demanded for some normative concept of a citizen.

Paralleling this recognition of diversity as something not to be obliterated are the current movements of racial and ethnic pride which aim at developing a positive view of who you are and where you came from as the basis for a productive life. In this group are the movements toward Afro-American, Hispanic, Native American and women's identity and self-respect.

Throughout this period two seemingly contradictory points of view have emerged. First, a desire is expressed by some to be only with people of one's own kind to establish strong positive identify. In contrast, others suggest that everyone be mixed together so that we all get to experience each other's culture first hand. Slowly the need to do both arises, to establish identity and then to share.

The results of these two developments has led to the organization of a number of racial and ethnic centers which are rich in materials and knowledge of each of the diverse groups in the metropolitan area. The Afro-American Museum, and the Chinese-American Resource Center are examples of such minority resource repositories as are the Boston Indian Council and the Hispanic Office of Planning and Evaluation. These organizations participated this year in the Design of Learning Environments projects to develop materials which would be appropriate for potential ethnic and racial heritage centers.

It is important that knowledge of Black, Hispanic, Asian-American and Native American history and their contributions to the United States be easily attainable within the minority community as well as in the majority community. Minority students must be encouraged to take pride in their culture and background and to understand the inter-relationships of history and culture they share with other minority groups. The majority community must have a better understanding of the similarities and differences among different racial and ethnic groups. There is a need for mutual appreciation of each others cultures as a means of breaking stereotypes and forming positive attitudes.

The curriculum of the schools should be directly affected if minority student isolation is to be eliminated; adequate materials reflecting the different cultures and histories based upon research and special studies must be made available. The children who will be responsible for the future must be prepared and able to understand their classmates. Teachers and administrators, as well as parents, should have proper access to resources reflecting the contributions of the different ethnic groups in order to develop this understanding.

Potential Curriculum Options

The Metropolitan Planning Project funded fourteen projects under the Design of Learning Environments Component whose activities were aimed at defining the factors which reduce minority group isolation. A description of several of these programs is relevant to this discussion of sharing cultural information. The Museum of Afro-American History, the Afro-American Resource Center, the Hispanic Culture Curriculum Project, the Chinese-American Resource Center, the Native-American Cross Cultural Program, the Elma Lewis School of Fine Arts' Mobile Museum and the Metropolitan Cultural Alliance all dealt with the self developed ethnic materials as a means of reducing minority group isolation. These projects will provide the core of the METRO ETHNIC HERITAGE RESOURCE CENTERS.

Afro-American Resource Center

The Afro-American Resource Center together with Boston, Watertown, and Cambridge school systems have provided programs in teacher training in Afro-American Studies and in curriculum development throughout Massachusetts, as well as publishing and producing related educational materials. The Museum of Afro-American History has compiled an extensive collection of documents and pieces reflecting New England's major role during the abolitionist era. It has developed a Black Heritage trail to train students as junior curators in the necessary research and technical skills. Their joint project involved taking the initial steps toward merging the two organizations in order to establish a permanent institution that will use the Roxbury community as a learning environment in minority and Afro-American history.

H.O.P.E.

The Hispanic Office of Planning and Evaluation in conjunction with the Randolph, Brookline and Boston School Departments developed a bilingual/bicultural curriculum for secondary school students. The curriculum is a self-contained body of knowledge to be used by Spanish bilingual and monolingual students as well as by non-Hispanic students. The six major areas covered are: arts, beliefs and ideologies, social issues, politics, economics, and communications.

Chinese-American Resource Center

The Chinese American Resource Center project was conducted by the Chinese Christian Church which has been the focus of social, as well as religious, services for Boston's Chinese community since 1896. The aim of this project was to acquire the best available, pertinent multi-media materials on Chinese culture and the Chinese American experience. It further developed Chinese lessons in both Mandarin and Cantonese which would be suitable for other American students. The Center conducted a massive search regionally as well as in New York and San Francisco for all relevant materials. Its' staff met with participating school districts in Lexington, Marshfield and the Experimental School System of the Commonwealth of Massachusetts and with advisory groups for the purpose of selecting the best of these materials. Among the final products are: annotated and packaged units of printed and audio-visual materials; Chinese-American studies curricula for elementary, junior high and high school programs; and Mandarin and Cantonese language lesson plans.

Boston Indian Council

The Boston Indian Council program was conducted with the Children's Museum and developed and piloted a curriculum on American Indian life in Boston, Brookline and Hingham. Its'aim was to provide cross-cultural learning experiences for elementary school children. The subject of the curriculum is the culture, history and contemporary Indian experience. It ranges from a structured academic program in classroom settings to social experiences in our of school situations. Further, this program developed a curriculum design and material explicitly protraying Indian people in life and instructions for the usage of these materials for teachers.

Elma Lewis School of Fine Arts' Mobile Museum

The Elma Lewis School of Fine Art Inc. initially proposed to develop a cross-cultural program involving inner-city and suburban children to alleviate minority isolation in the classroom. This aim was to be achieved by organizing and promoting awareness workshops for parents, teachers, staff and students. In cooperation with the towns of Weston and Brookline, the Elma Lewis School developed a Mobile Museum visit sites will be involved as students assistants to the lecturer. The five exhibits are of different character, e.g. one presents a particular era of Afro-American art history, another of contemporary Afro-American work, another with traditional African art, and the final one deals with a phase of West Indian Art.

Minority communities believe that the potential of their existing agencies and groups should be utilized and encouraged. They are interested in collaboration with other community groups which will increase production and sharing of materials while avoiding duplication of effort.

The Metropolitan Planning Project recognizes the value and need of both minority and majority groups in the metropolitan area for cultural exchange about each of its'many ethnic and racial groups. Thus, MPP recommends the establishment of a METRO ETHNIC HERITAGE RESOURCE CENTER as a coordinating vehicle to support the continued development of existing minority and ethnic heritage institutions and to facilitate and coordinate the development of heritage resource centers throughout the SMSA.

Program Centers

The METRO ETHNIC HERITAGE RESOURCE CENTERS will concentrate on the following areas

1. Inventory of existing resources for ethnic studies; historic sites; cultural materials, and regional folklore; people and their contributions; existing agencies, organizations, cultural centers or resource centers;

2. Evaluation and analyses of literature and existing materials; Preparation of reading materials and other learning aids (such as films, slide presentations, art exhibits, crafts exhibits, and fairs;

3. Research into areas related to Native American, Asian-American, Hispanic American or Afro-American and other ethnic studies;

4. To compile multi-cultural artifact exhibits for students, parents, teachers, administrators, and the larger community.

The METRO ETHNIC HERITAGE RESOURCE CENTERS will become a bank of information for the entire SMSA as part of METROCENTER FOR COMMUNICATION, COUNSELLING, AND RESOURCE DEVELOPMENT. Although it may house materials, and exhibits, its' main function, in coordination with existing organizations and interest groups, shall be to encourage or facilitate investigations into the above mentioned areas and facilitate the creation of METRO ETHNIC HERITAGE RESOURCE CENTERS throughout the SMSA. These METRO ETHNIC HERITAGE RESOURCE CENTERS would reflect minority and other ethnic cultures and life styles. Cultural exchange provides for better understanding. Framingham, for example, may be the site of a Puerto Rican Cultural Center, but it would also include materials and information about the Afro-American experience and the Irish or Italian experience. Roxbury may be the site of a Black Cultural Center, but materials to encourage understanding of the Native-American should be available. These accomplishments may be achieved in a long range effort but community cultural clubs or groups can become important factors to the development of these cultural resource centers. The materials could be used in the schools for furthering mutual understanding of students of different backgrounds. The presence of various ethnic materials in one setting would help achieve a feeling of equality within the pluralism of the metropolitan area.

These resource centers should:

1. Be open to students throughout the SMSA;
2. House and exhibit information and materials related to racial and ethnic groups;
3. Assist the school systems of the SMSA to broaden the educational experience of students, teachers, para-professional, clerical and professional personnel.

Dissemination of information would occur through the existing institutions and would be expanded throughout the period of the Ten Year Plan. An information strategy would include:

1. Libraries of Boston SMSA;
2. Boston School Departments, Bilingual Department, Black Studies Department;
3. SMSA school districts;
4. School book publishing companies;
5. Museums and other cultural institutions;
6. Community groups, social clubs, community agencies;
7. Colleges and universities.

A Coordinator will be appointed who would work with persons interested in forming METRO ETHNIC HERITAGE RESOURCE CENTERS. In order to begin work on the development of ethnic heritage resource centers throughout the metropolitan area a permanent advisory council of cultural heritage resource persons should be formed. The council could take the form of an expanded Metropolitan Program Board, similar to ones which will be operative for METROPATHWAYS and METROPAIRWAYS. The council would be composed of knowledgable persons in such areas as: ethnic and racial studies, literary and oral folklore, archeology, regional history of ethnic groups and others. The purpose of this council would be to form a nucleus of interested people who will be able to suggest direction and evaluate the progress of the METRO ETHNIC HERITAGE RESOURCE CENTERS.

The Coordinator and the advisory council would work together to develop proposals and seek the necessary funding for the needs of existing centers and the development of new centers. Similarly, the Coordinator would work closely with the Coordinators of METROPATHWAY and METROPAIRWAY to identify needed materials for the development of curriculum and to encourage existing ethnic heritage resource centers to develop curriculum materials where possible. This collaboration with the METROPATHWAYS and METROPAIRWAYS programs would also allow the METRO ETHNIC HERITAGE RESOURCE CENTERS Coordinator to determine areas of greatest need for the future development of ethnic heritage centers in communities throughout the SMSA.

Summary: Program Recommendations - METHROPATHWAYS, METROPAIRWAYS, METRO ETHNIC HERITAGE RESOURCE CENTERS

This Chapter has described the three core program structures for the Alternative Plan: Metropolitan Education Programs. These programs have a potential multi-dimensional impact on the Greater Boston area:

- the reduction of minority group isolation
- the reduction of majority group isolation
- the improvement of educational quality for all groups
- the encouragement of collaborative efforts in eliminating isolation
- the encouragement of innovative educational approaches to racial integration
- the increased sharing of educational decisions with all participants in the educational process
- the development of positive self-concept in pupils
- the preservation of group identity
- the availability of effective instructional materials
- the development of meaningful curriculum
- the availability of increased educational options for students
- the utilization of the vast community and cultural resources within the area
- the significance of utilizing third sites

These recommendations are program structures in that the development of specific curriculum, and organization of the management of the programs will be decided in a team process: the MPP Coordinator, the school administrators, the teachers, the students, the parents and the community resource persons involved. This form of program planning underlies the programmatic discussion in this Chapter and is, in fact, an extension of the fundamental premise upon which the Ten Year Plan has been formulated: an open, iterative planning process through which the maximum participation has been sought. Chapter IX discusses the administrative recommendations for these metropolitan education programs, other supportive services and future planning procedures. Chapter X described the MPP governance recommendations for MPP and the implementation of the Alternative Plan.

CHAPTER IX THE ALTERNATIVE PLAN: METROPOLITAN EDUCATION PROGRAMS

ADMINISTRATIVE RECOMMENDATIONS

CHAPTER IX

THE ALTERNATIVE PLAN: METROPOLITAN EDUCATION PROGRAMS

ADMINISTRATIVE RECOMMENDATIONS

Introduction

During the Project's first year of feasibility testing, both the work accomplished as well as that remaining to be done point to the need for a center of communication and coordination for the proposed metropolitan education programs.As a place for those to be developed under the concept of voluntary collaboration, MPP is proposing for these purposes a METROCENTER FOR COMMUNICATIONS, COUNSELLING, AND FESOURCE DEVELOPMENT which would function as a support service to develop short and long term collaborative links among school systems, communities, institutions and individuals to eliminate racial and ethnic isolation throughout the SMSA.

The METROCENTER would be organized to meet needs in three vital areas: staff and community development for METROPATHWAYS and METROPAIRWAYS programs; the coordination of the METRO ETHNIC HERITAGE RESOURCE CENTERS and dissemination of information for operational programs for those being planned for the future; and the planning of other programs leading to the implementation of a long-range Ten Year Plan. The success of the METROPATHWAYS and METROPAIRWAYS and METRO ETHNIC HERITAGE RESOURCE CENTERS relies in part on the use of cooperative communication based upon the participants' assessments of their needs and priorities. Support services must be readily available for students and staff as well as for auxiliary personnel. If it is assumed that the initial collaborative efforts will stimulate the creation and development of new programs, then continued development of supporting program services is essential. Programs featuring greater individualization of instruction, use of resources in multi-cultural, multi-ethnic learning environments demand a coordinated, consistent effort to insure all citizens the opportunity to participate from a base of knowledge and understanding.

Staffing Patterns

The METROCENTER staff in the first operational phase would be a multi-racial team composed of an Executive Director, a METROPATHWAYS Coordinator, a METROPAIRWAYS Coordinator, a Staff and Program Development Coordinator, and a Staff Associate. The staff will have familiarity with the metropolitan area, its current programs, resources, and problems. They should possess expertise in participatory planning and evaluation techniques, multi-cultural, multi-ethnic materials and curriculum design, educational research and development, staff and community training methods for attitude change, computer systems analysis, and communications designs.

The team should work flexibly and should utilize the resources of parents, teachers, students, administrators and institutional personnel in planning the METROCENTER's design and implementation activities.

The initial phase includes intensive work on METROPATHWAYS, METROPAIRWAYS and METRO ETHNIC HERITAGE RESOURCE CENTERS programs. The Coordinators will play an active role in assisting parents and teachers by providing them with materials and resources. As a particular program reaches the implementation stage under the direction of the special assignment teacher and parent, the Coordinator will be free to work with another group who is interested in setting up a program for their community.

The resources upon which to build the operational programs were gathered from the feasibility study. The collection and dissemination of data is a necessary function for long-range systems planning that requires a comprehensive design with computer access. If one of the goals of a service and communication agency is to stimulate collaboration, then it must be seen by its potential users as responsive to changing needs, accessible and reliant upon the participation of those who need its services. An agency which is viewed as "superstructure" does not attract such participation and becomes less responsive to individual need. Thus, the information systems which are a part of the METROCENTER will be closely coordinated with the emerging service priorities of the METROPATHWAYS and METROPAIRWAYS programs and with the development of the METRO ETHNIC HERITAGE RESOURCE CENTERS. Quality education alternatives and elimination of isolation can also be achieved for students who do not participate directly in the METROPAIRWAYS and METROPATHWAYS programs. There are currently a number of alternative programs in the Boston metropolitan area. Yet students often do not know about alternative programs because of the lack of information exchange. A directory of alternative programs would bring to counselors, students, and parents the range of choices throughout the entire SMSA and would promote interaction between districts and individual schools and groups to reduce both academic and minority group isolation. A first step in compiling such a directory was made by the Community Resource and Facilities Inventory in Framingham, Bedford, Brighton and the South End. Auxiliary resources of personnel and curriculum materials must be brought into the learning process if students options are to be expanded. Often, "outside" people with whom students might have a strong identification are introduced as lecturers or "one-shot" resources. Yet there are people and institutions throughout the metropolitan area who would willingly serve as continuing program resources. A directory would allow people and places within reasonable reach to capitalize on the metropolitan area's wealth of opportunities for learning and teaching.

Moreover, analysis and retrieval of data pertaining to the development of programs to eliminate minority student isolation is a process which must be continued, expanded and modified as pilot programs are implemented and replicated.

The feasibility study has collected and analyzed data pertaining to the different factors which are involved in any program planning: housing, transportation, economics, recreation, enrollment projection, educational characteristics and demographic data, with an analysis of ethnic and racial variables for 83 school districts in the MPP study area. These analyses will be updated, computerized and used as the central information system in the further refinement and development of programs and curricula. The monitoring of the operational projects will be designed as an integral part of the information system which includes minority and majority group teachers, staff and students. All this data will be used to evaluate, formulate, expand and continue programs which eliminate racial and ethnic student isolation.

Programmatic Components

Programmatic components housed in the METROCENTER FOR COMMUNICATIONS, COUNSELLING, AND RESOURCE DEVELOPMENT would be developed as needs emerge from greater use of interdistrict metropolitan education collaborative programs such as METROPATHWAYS, METROPAIRWAYS and METRO ETHNIC HERITAGE CENTERS. Programmatic options might include:

I. Metropolitan Education Programs:

A. Administration of the major program recommendations of the Ten Year Plan: METROPATHWAYS, METROPAIRWAYS, METRO ETHNIC HERITAGE RESOURCE CENTERS;

B. Coordination with other metropolitan education programs whose goals are similar to MPP;

C. Coordination with schools and school districts and their personnel who are interested in furthering the goal of the elimination of racial and ethnic isolation;

D. Coordination with community organizations and persons whose goals are similar to MPP;

E. Coordination with other public and quasi-public agencies who are a part of the data gathering network developed through the feasibility study;

F. Development of a metropolitan information exchange:
   1. An alternative program directory for students;
   2. A learning environment facility directory;
   3. Research and evaluation mechanism for updating information systems.

II. Staff and Program Development as Support Services:

A. Student and teacher service programs, workshops;

B. Program and material development.

III. Other Program Functions:

- A. Community participation in the governance of metropolitan education programs;
- B. Communications and public information;
- C. Funding investigation and assistance in proposal writing and future submission to sources;
- D. Minority, teacher and administrator recruitment and referral exchange.

Steps for the Development of METROCENTER

The service orientation of the METROCENTER will be structured according to emerging needs, with growing collaboration among school districts. The initial phase of one of the products of the METROCENTER will include those functions which deal directly with METROPATHWAYS, METROPAIRWAYS and the METRO ETHNIC HERITAGE CENTERS.

Metropolitan Education Programs

The administration of the major program recommendations of the Ten Year Plan will be carried out through the METROCENTER by its core staff. Each program coordinator will begin to meet with school district personnel, parents, students and resource personnel in order to launch these programs. Moreover, there are other metropolitan-focused student programs sponsored by METCO and EdCo with which liason activities should be continued and coordinated. The new magnet programs and magnet school projects to be funded by the State Department of Education Equal Educational Opportunity Office will also be coordinated. The DLE funded ethnic curriculum projects will be developed as the core of the METRO ETHNIC HERITAGE CENTERS. The network of data source agencies which was developed during the feasibility study year will be further organized and other agencies added. It is hoped that as a part of the operational phase, METROCENTER can encourage collaboration among these agencies whose work is, in fact, interrelated with education systems.

Metropolitan Information Exchange

The research efforts begun during the planning year by MPP would be catalogued, housed, continued and expanded as part of the METROCENTER operation. Thus the primary activity during the first year would be the design and development of adaptable computerized systems which will make resource data easily available and will provide for expansion and collection of new data as this becomes necessary for the successful functioning of metropolitan educational programs.

The METROCENTER will provide students with information about the types and structure of alternative program options available to them. One focus is to gather pertinent data regarding each available program and compile the data into a brief descriptive statement for counselling purposes both at the

METROCENTER and, in the form of a newsletter available to all counselors in the METROPATHWAYS and METROPAIRWAYS schools.

These statements could include the following information:

1. a short description of the program content, school or other location;
2. a listing of program objectives and prerequisites, if any;
3. a statement about the teaching-learning strategies, i.e., open, individualized or structured, group centered;
4. the racial and ethnic make-up of the student body;
5. an inventory of community and business resource persons who would provide intern or special tutoring service;
6. the schedule format by hour, day, month, year and credits earnable;
7. the number of spaces available;
8. the tuition fees required, if any.

Students desiring to be involved in the METROPATHWAYS and METROPAIRWAYS programs who wish to participate in the options could talk with the school counselors and assess their own needs in relation to the optional program opportunities. The counselors having information regarding the programs and spaces available, could suggest possible programs to the students.

Students could sign up for those programs they desire and then inform the METROCENTER as a part of the information base. In addition, students will also go directly to the METROCENTER to seek information about program options and to discuss their own personal needs and learning styles with METROCENTER staff counselors. This approach will allow the METROCENTER to negotiate directly with appropriate program administrators for admission of students.

In addition to information, counselling and assignment responsibilities, the METROCENTER will account for student attendance, keep track of racial and ethnic make-up of student groups and facilitate reciprocal arrangements between collaborating districts. The matching of students with appropriate programs will be enhanced through computerization of the information to provide an important link for expansion of the METROPATHWAYS and METROPAIRWAYS projects into broader areas of participation within metropolitan Boston.

The learning environment facilities and resource bank is closely aligned with metropolitan program development. The survey tool discussed earlier will inventory these facilities and resources and people interested in participating in integrated innovative programs for students. This information system would provide ready access for implementation and expansion of the METROPATHWAYS and METROPAIRWAYS programs as well as the METRO ETHNIC HERITAGE RESOURCE CENTERS.

Staff and Program Development

The Staff and Program Development Coordinator of the METROCENTER will work with participating adults and students of the METROPATHWAYS and METROPAIRWAYS programs and the METRO ETHNIC HERITAGE RESOURCE CENTERS toward the goals of a society which accepts and respects its own diversity. As these programs open broader educational opportunities for all students and as they become involved with students of other racial and ethnic background, the need for understanding and sensitivity on the part of school staff and parents becomes critical.

The methods to achieve program development will be chosen by the staff and community groups actually involved with a specific education program. Trained, sensitive leaders from different disciplines and minority groups will form a small team. The team will have members who are specialists in group work and training techniques. They will be available to work with all schools participating in the metropolitan education program board collaborative.

In each of the schools of the collaborative, a special assignment teacher will be appointed, preferably by the faculty, to act as a helper, a catalyst, a resource person and administrator of diagnostic and training activities for the school's staff development program. In each of the parent groups, a parent will be chosen by the parents to fill a role similar to that of the special assignment teacher. The two will work together to coordinate the staff and parent programs.

Each staff, parent and parent group will make an initial assessment of program needs. Although this assessment will be made under the leadership of the special assignment teacher and parent, members of the development team may be called upon for consulting help. The results of these needs assessments and recommendations by the team specialists will be presented to the faculty at large of each school and to the total parent group. The faculty at large and the total parent group will decide upon the training and development mechanism. The team will develop or suggest programs based upon these decisions and the special assignment teacher and the parent facilitator then will be charged with implementation responsibilities.

Other Program Functions

Other program functions will include further support service and governance activities. Each metropolitan educational program will be governed by a Metropolitan Education Program Board which will include the participatory school district superintendents or their representatives, teachers, parents, students and minority groups who are involved in the programs, as well as a representive of the MPP Governing Board. The basic thrust of the metropolitan education programs is to develop a voluntary collaborative of school districts which would operate under a centralized organization structure with a staff to develop and administer the curriculum programs. This collaborative would not create a new school district but act as a supplement to school programs in the member school districts. In METROPATHWAYS, the member school districts would participate in any of the curriculum options; however, they need not necessarily join all of them. For example, some school districts might elect to participate in the Career Investigation program, another in METRO Class; however, all would be participating members of one collaborative organization and members of the Program Board.

In METROPAIRWAYS, the pair or triad of schools will participate. A second thrust of the metropolitan education program is to provide for strong minority group representation on the Program Board of this collaborative, therefore, it is recommended that up to half of the total membership of the Program Board should be minority group people. METROCENTER will encourage and organize such participation, building on the work of the MPP Community Participation Component in this planning year, particularly the urban-suburban steering committee.

A strong effort on the part of the METROCENTER staff will continue to be made to locate funding sources and assist in the development of proposals which meet the MPP mandate.

Lastly, in coordination with the beginning activities in the listing of minority teacher recruitment ordered by the federal court for the Boston School System, METROCENTER will develop a minority teacher and administrator recruitment and referral exchange which will encourage suburban school districts to hire qualified minority teachers and administrators.

It is suggested:

1. That this referral service would continue to assist suburban and urban school districts and other educational agencies in employing minority persons as teachers, specialists, aides, tutors and administrators;

2. That this referral and placement service would have a coordinator and necessary staff and would call upon a resource bank developed by METROCENTER for resource persons that might be needed especially in conducting orientation/human relation workshops for minority candidates and the receiving suburban school systems;

3. That this minority staff placement service would actively recruit minority applicants by using student unions and organizations from all the college and university campuses in the metropolitan Boston area, as well as student placement offices;

4. That interaction and communications on at least a monthly basis with these organizations and the participating school districts is imperative.

As a part of this exchange, the Staff Associate should meet with the placement officers and curriculum committees of teacher training institutions in the metropolitan area, particularly the State College,to discuss minority teacher recruitment and other issues related to the elimination of minority group student isolation.

For example, it would be the responsibility of the Staff Associate to work with the State Colleges to be sure that all undergraduate and graduate students be required to complete courses in use of multi-ethnic materials with practical experience in the same. Courses in human and race relations - training designed to provide them with an understanding of cultural and ethnic differences in our society and with techniques for dealing with students coming from diverse backgrounds - could be developed as well.

Organizational Structure of METROCENTER

The MPP Governing Board and Advisory Committee will continue to oversee the activities of the staff as described in the 1973 proposal bylaws. (See Diagram IX-I.) The Executive Committee of the Governing Board will work very closely with the Executive Director in recommending policy for the project, as well as assisting the dissemination of information about prior activities in locating sources of funds for metropolitan educational programs. The Metropolitan Educational Program Board is developed for maximun flexibility (See Diagram IX-II).

Second Year Operation of METROCENTER

The METROCENTER would become fully operational in its second year and would expand its initial programs as well as begin new services which would be open to the public. Activities would include: minority recruitment and referral service; dissemination of METROCENTER program directory to participating districts, students, parents, counselors and teachers; structuring of staff and community development options and processes; monitoring and evaluation of programs; research and data updating; technical resource aid in development of new programs and materials; structuring of staff development conferences, seminars, and workshops requested by district and school personnel; planning for expanded METROPAIRWAYS, METROPATHWAYS, METRO ETHNIC RESOURCE CENTERS and other alternative program options; and collection and cataloging of educational resources.

Third and subsequent years' operations will be patterned on continuation, expansion and evaluation of programs and activities which eliminate racial and ethnic student isolation throughout the metropolitan area. Such activities will be modified and adapted to emerging school, community and individual needs and priorities.

DIAGRAM IX-I

ORGANIZATION CHART FOR THE METROPOLITAN PLANNING PROJECT

For The First Operational Year

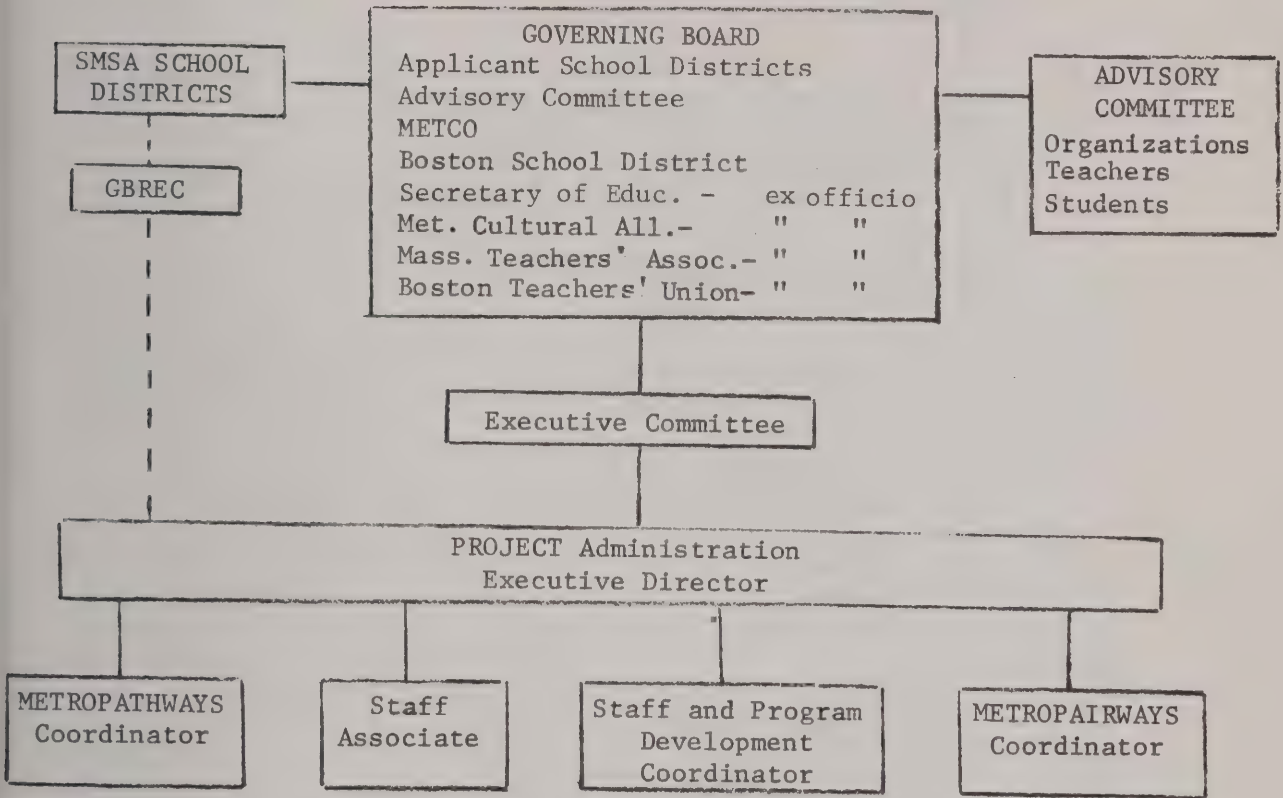
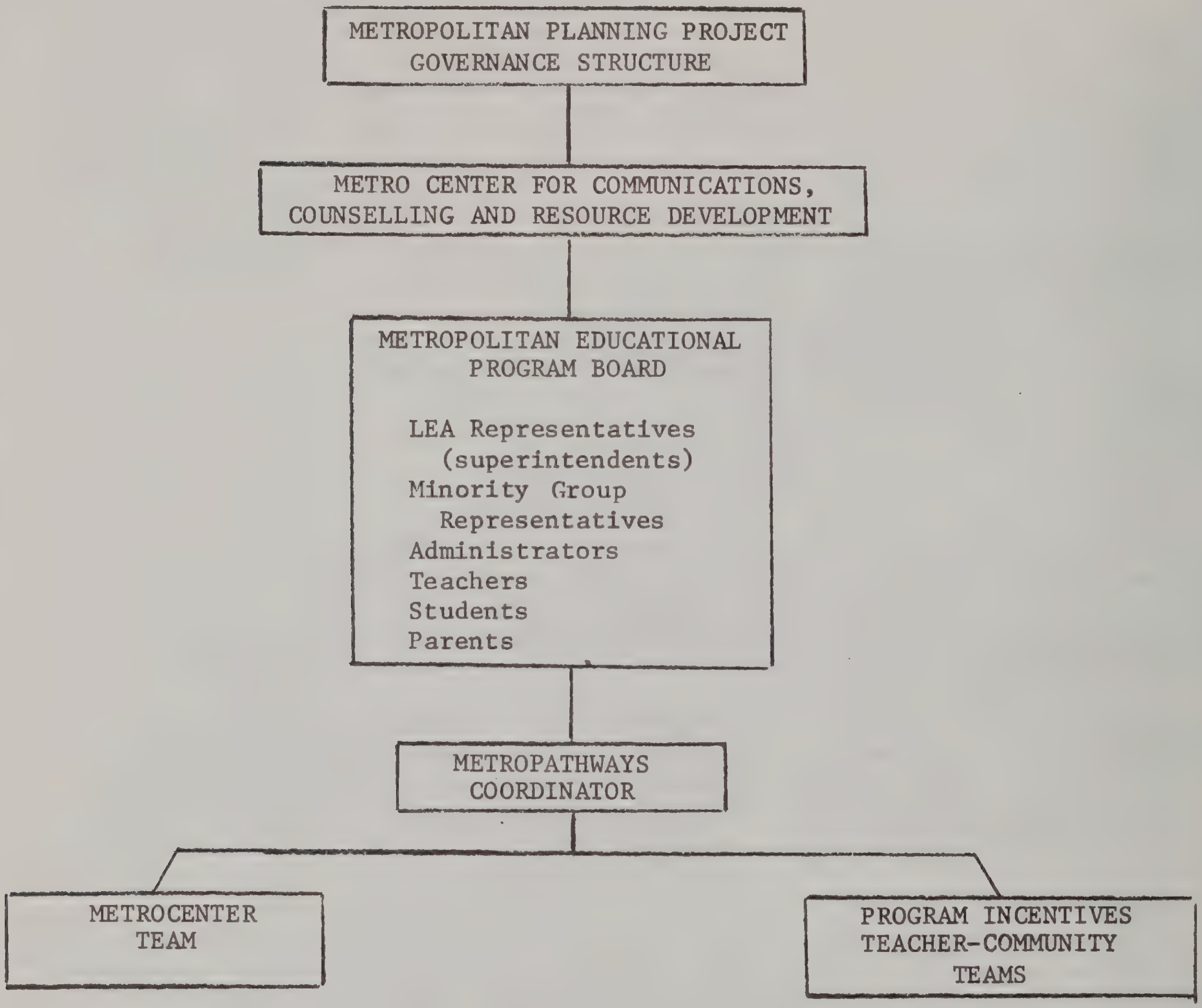

SMSA SCHOOL DISTRICTS
GBREC
GOVERNING BOARD
Applicant School Districts
Advisory Committee
METCO
Boston School District
Secretary of Educ. - ex officio
Met. Cultural All.- " "
Mass. Teachers' Assoc.- " "
Boston Teachers' Union- " "
ADVISORY COMMITTEE
Organizations
Teachers
Students
Executive Committee
PROJECT Administration
Executive Director
METROPATHWAYS Coordinator
Staff Associate
Staff and Program Development Coordinator
METROPAIRWAYS Coordinator

DIAGRAM IX-II

ORGANIZATION CHART OF THE METROPOLITAN EDUCATIONAL PROGRAM BOARD


METROPOLITAN PLANNING PROJECT GOVERNANCE STRUCTURE
METRO CENTER FOR COMMUNICATIONS, COUNSELLING AND RESOURCE DEVELOPMENT
METROPOLITAN EDUCATIONAL PROGRAM BOARD
LEA Representatives (superintendents)
Minority Group Representatives
Administrators
Teachers
Students
Parents
METROPATHWAYS COORDINATOR
METROCENTER TEAM
PROGRAM INCENTIVES TEACHER-COMMUNITY TEAMS

Note: The Coordinator will serve as Executive Officer to the Board and will have authority to develop programs within guidelines established by the Board.

CHAPTER X THE ALTERNATIVE PLAN: METROPOLITAN EDUCATION PROGRAMS

GOVERNANCE RECOMMENDATIONS

CHAPTER X

THE ALTERNATIVE PLAN: METROPOLITAN EDUCATION PROGRAMS

GOVERNANCE RECOMMENDATIONS

Introduction

Trends in public administration can be viewed in a cyclical fashion: centralization for economics of scale, efficiency, and equilization of resources; decentralization for citizen participation, local autonomy and program development. The nineteen thirties and forties in this country saw an extended swing, towards centralization; the fifties and sixties saw a sharp swing toward decentralization of governmental activities. Each swing has been a reaction towards societal issues and problems which emerged at that time; each swing was useful in so far as it met the needs which were present at that time. However, each swing was both expensive and time consuming in terms of social and economic costs; trade-offs were made, people dislocated, and difficult behavioral changes were forced upon different communities. Therefore, any recommendation for a change in a governance structure of a major public function delivery service must consider its many possible ramifications. The governance issue identification paper in Chapter VI, "Metropolitan Solutions to Urban Education Problems" discusses some of these ramifications.

Suggestions for a form of metropolitan governance for the education services of a state abound in the literature of education and public administration; in some areas of the country experiments with metropolitan governance have been tried and occasionally subsequently installed. Dade County, Miami, Florida, and Jefferson County, Kentucky, are two examples; the BOCES law in New York State has generated a model of intermediate level educational services which is being replicated in many parts of the country. In Canada, the Greater Toronto School System is a federation approach to meet the problems evidenced in that metropolitan area.

Massachusetts, as reviewed in Part One, THE CONTEXT, has considered various forms of metropolitan or intermediate level school governance structure for several years. Several specific trends led to this current feasibility study of metropolitan approaches for the delivery of educational services: the fiscal crisis of state and local governments with the concurrent pressures for raising revenues; the increasing demand for the decentralization of the governmental decision making process; and the renewed belief that education systems must implement the social policy decisions on integrated schooling which the nation has generally decided upon through its laws and its court opinions. These trends differ from those which marked earlier swings to different forms of governmental administration because they reinforce each other and provide an interpretation of the law of the land. Given these considerations, when Congress enacted the ESAA, the Metropolitan Planning Commission which had been established by the Massachusetts Acting Commissioner of Education, and the GBREC staff developed a Proposal and 17 Applicant School Districts applied for a planning grant to examine the ways in which voluntary collaboration on a metropolitan scale, including both central city and suburbs, could eliminate the isolation of minority group students as well as majority group students.

The collaborative governance structure which MPP has tested this year through its DLE projects and Support Research analysis has been previously utilized in Massachusetts for both educational and education related purposes. Each of these previous collaboratives focused on a specific service to be delivered to its service population. What is new in the current discussion is the use of collaborative to meet a social policy issue: the elimination of racial and ethnic isolation through urban-suburban school district voluntary collaboration about innovative education programs on third sites.

The next section of this chapter reviews the present status of educational governance options in Massachusetts. The recommendations of MPP follow that review. It is in two parts: draft legislation establishing Metropolitan Education Program Boards which will be submitted to the Massachusetts General Court through the Massachusetts Department of Education; and specific collaborative governance recommendation: voluntary school district collaboratives and suggested groupings of these collaborative school districts in accordance with the MPP policy decisions and ESAA guidelines previously discussed.

Current Options in Educational Governance in the Commonwealth of Massachusetts

Present Enabling Legislation

There are two organizations currently operating which were developed to meet goals similar to those of MPP: Experimental School System of the Commonwealth of Massachusetts (E.S.S.C.M.) and the Metropolitan Council on Educational Opportunity (METCO). In the 1974 session of the General Court, AN ACT TO ENCOURAGE THE ESTABLISHMENT OF COLLABORATIVE EDUCATIONAL PROGRAMS AMONG CITIES, TOWNS AND REGIONAL SCHOOL DISTRICTS OF THE COMMONWEALTH was passed. This law could encourage MPP goals. It enables state education regional offices to assist school districts in establishing collaborative educational programs and/or services. Apart from these specific organizational structures, there are general laws in Massachusetts which provide for the organization of "Corporations for Charitable and Certain other purposes", and under which the Educational Collaborative of Greater Boston, Inc. (EdCo) was established. Some legal implications and issues are raised by the enabling legislation as it affects the MPP voluntary collaborative recommendations which are discussed below.

> Chapter 180 MGLA 1-12, "Corporations for Charitable and Certain other Purposes" (In the 1974-75 Cumulative Annual Pocket Book) to Vol. 29, Chapters 176-182 (St. 1971, C. 819, SS 1-3 approved October 1, 1971 amending Chapter 180 of the General Law by replacing SS 1-11B with SS 1-11C.)

This law provides for a flexible internal structure for governance and distribution of authority within the corporate organization; however, it does necessitate strict adherence to a codified body of law pertaining to corporations. The Corporation may choose any name that is not deceptive as to the corporate purpose and not used by any other corporation doing business in the state; any person over the age of 18, with no criminal record, may incorporate. The question of naming the directors may be of crucial importance to MPP If the corporation is to receive State aid then it must either be under public control, which may necessitate the appointment of local school authorities as directors, or under contract with the State for services to be rendered.

However, if local school authorities are to sit as the directors of the corporation and membership is to be voluntary, then members will be moving into and out of the corporation, necessitating numerous changes in the number of persons on that board.

The incorporators may also establish one or more classes of members in the corporation (analogous to stockholders) who may differ in regard to their rights to control the corporation; this includes their voting rights. Thus, rather than have the school committee representatives placed on the board of directors, they may be placed in a certain class of members who have the authority to vote for the directors and approve of actions taken by the corporation. The incorporators may set the qualifications for members in the class and thus, MPP, if it acts as an incorporator, may establish condition precedents to school district participation in the corporation. By establishing this type of membership class, having certain rights of corporate control, the idea of voluntary participation would be facilitated since it would permit the free entrance and exit of school districts as long as they met the requirements of the incorporators as established for membership in that class.

A Chapter 180 corporation may be formed for any one or more of the following purposes: civic, educational, charitable, benevolent, or religious. The corporation may exercise all powers necessary to effect any or all of the purposes for which the corporation is formed, provided such action do not violate any State Law.*

The corporate approach would allow for almost unlimited control and flexibility over the internal organization of the corporation and the distribution of authority therein. Such internal and autonomous control is not found in the ESSCM or METCO approaches. In addition, the corporate form grants to the corporation more power to fulfill the corporate purpose, particularly the right to deal with properties and to enter into contracts without outside authorization. However, concurrent with this greater flexibility come the many statutory limitations, such as protecting the class of members established.

In addition the corporate form does not speak to State aid, and some other means by statute would have to be found or drafted to permit the corporation to accept State aid in a form other than a contract for services to the State.

Massachusetts Experimental School Acts, Chapter 808
Section 1G of Chapter 15 of the General Laws is amended. An Act relative to the Development of Educational Innovations for the Public Schools

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* Corporate Powers, reference is made to a-d and k of S9 of Chapter 156B, and if allowed in the articles of the organization, to any other power listed in S9 of Ch. 156 of the MGLA except for m.

The ESSCM legislation provides for a planning body which would have wide representation to include persons in the fields of education, labor, and business. This organizational form mandates broad community participation. However, there are limitations in the ESSCM organizational form not found in the corporation form. The legislation creating ESSCM was an amendment to MGLA Ch 15 §1G which defines the State Board of Education's powers and duties. Consequently, ultimate control is vested in the State Board. The Commission is authorized only to plan and recommend; it has no final authority. The Board has final veto and the authority to implement and supervise the operation of the experimental plan through its appointed supervisor.

MPP may follow this format in that the commission in charge of planning could be composed of representatives of participating school districts. Any distribution of authority seems feasible under an enabling statute such as this one; however, the placement of an amendment creating an innovative educational planning commission under MGLA Ch. 15 §1G has the apparent effect of requiring the Board of Education to have ultimate veto power over any such plan.

> Metropolitan Council on Educational Opportunity (METCO) C.506 of the Acts of 1966, "An Act Providing for the Attendance of Certain Children in Public Schools of Cities and Towns other than the Cities and Towns in which they reside."

Authority under METCO is given to School Committees of any city or town to adopt a plan for other children to attend schools within their districts. These plans must tend to reduce racial imbalance. School districts voluntarily participate and may tailor plans to suit their individual requirements and needs. Unlike ESSCM, the Board of Education may only approve or disapprove submitted plans; it may not modify them on its own. However, a Board of Education approval is a condition precedent to State aid. There appears to be a more equitable balance of authority under METCO with the local school districts having complete control over the implementation of plans, and some power to control the manner in which State aid is distributed. If the State Board approves the plan and grants State aid, the local school committees may reject the form and manner in which such aid is offered.

Participation in METCO is purely voluntary, and planning authority is vested in the local authorities. There appears to be no problem extending these elements into voluntary collaboratives among numerous school districts rather than limiting it to one. Any number of districts should be able to collaborate in the adoption of plans which would tend to reduce racial isolation, and therefore permit the free flow of districts into and out of the planning body as would suit the purposes of the collaborative.

The METCO plan makes specific provisions for the availability of state financial assistance and other assistance that may be forthcoming from gifts, grants, or contributions from any source. The corporate form cannot with assurance guarantee that state aid would be available, and one can only assume that under ESSCM state aid would be available although no specific provision is made for it. In any case, the acceptance of state aid will place some limitations on the corporate form, such as Board approval of corporate plans or proposals, which is found in both the ESSCM and METCO formats.

State Department of Education: Regionalization

Another governance alternative for MPP is to become a part of the newly restructured State Department of Education. The stated policy of the State Board of Education is to decentralize and regionalize the State Department of Education in order to facilitate faster and more efficient service to the LEA's and to open access to the local communities, superintendents and School Committees. Six Regional Educational Centers were established under the State Statute, Chapter 572 of the Acts of 1965, following the Commissioner's Report of 1965 and further encouraged by federal legislation in 1967 which provided funds and incentives for their creation. Each geographical region is composed of a core inner-city and surrounding suburban communities. Although all local educational agencies automatically belong to a region, their participation in the Center's programs is optional and arranged by contractual agreements. Regional boundaries are for elementary and secondary education only, although most regions are cooperating with higher education institutions.

In the structure of the State Department of Education, the Office of Regional Education Centers is under the Commissioner's office and its director is directly responsible to the Commissioner. The Regional Centers operate as field location for interdivisional and cooperative approaches to problem solving and program development. The Centers also offer programs and services to aid local school systems in providing equal educational opportunity for all students within the service area. It is possible that the MPP functions could be developed within these offices. However, the boundaries of the MPP Study area overlap into the service areas of four Regional Centers. Moreover, the program governance structures of MPP and the Regional Centers may differ. Nonetheless, it is an option which has been explored with the Greater Boston Regional Center and the Commissioner of Education.

Boston School System Reorganization

There are, at the time of this writing, several options dealing with the reorganization of the Boston school administration which will be voted upon on November 5, 1974. The plan which would most drastically change the current system is "Question Seven" on the ballot.

Question 7 deals with reorganization of the Boston School Department which provides for a new structure by replacing the present school committee with a multi-tier organization. If it passes, a central administration under the charge of a Superintendent of Schools appointed by the Mayor with the approval of a City-Wide Advisory Committee will take over some of the responsibilities of the present school committee. The School Department will become a city department and the Superintendent, a member of the Mayor's Cabinet. Other previous functions of the School Committee will be transferred to a number of elected Area and Neighborhood Councils and committees composed of parents, teachers and students. The decentralization of authority proceeds with a division of the city into areas, each headed by an Area Superintendent and an elected Area Advisory Committee. There will be one Superintendent for the high schools who will work in cooperation with an elected City High School Advisory Committee. Local decision-making occurs on the level of a Neighborhood School Council for each intermediate school district in the city. There will also be a High School Council for each city high school.

Intermediate Education Agencies Proposal for the Boston SMSA

This proposal, based on the BOCES model, has been reviewed by The Governor's Commission on School District Organization and Collaboration. If Intermediate Education Agencies (IEA) were to be established in the Boston Metropolitan Area, there would be five I.E.A.'s which would each include a portion of the Boston LEA, so that the programs and services which they offer would benefit the urban student and so that the minority student isolation would thereby be reduced. In every instance but one, the proposed regions are based upon existing collaboratives. These existing collaboratives should be considered the nuclei of the new I.E.A.'s, building upon their experience in serving the local school districts.

Region I is based upon that network of LEA's called the Lighthouse Collaborative, but it also includes non-members such as Weymouth, Quincy, and that part of Boston east of the Southeast Expressway (Savin Hill, Columbia Point and South Boston.) It includes about 70,000 students of whom 3% are minority group students.

Region II is based upon that group of communities which collaborated on the Blue Hills Regional Vocational School, plus Sharon, Milton and Dorchester. It has approximately 70,000 students of whom about 7% are members of minority groups.

Region III is largely based upon The Education Collaborative (TEC) though it excludes those towns which are also members of the Blue Hills Regional Collaborative and includes Framingham, Dedham, and those Boston neighborhoods adjacent (West Roxbury, Mattapan, Hyde Park, Roslindale, Jamaica Plain). It has about 70,000 students - nearly 10% of whom are minority group students.

Region IV includes all the 1973-74 EdCo LEA's except Cambridge, and adds Lincoln, Sudbury, Brighton, and Roxbury. It has about 75,500 students of whom 19% are minority group members.

Region V has no current collaborative structure except Northeast Metropolitan Regional Vocational School and MASBO. It would include the towns of Chelsea, Everett, Revere, Somerville, Winthrop, Malden, Medford and Cambridge, and the Boston neighborhoods of East Boston, Charlestown, North End, South End, Beacon Hill, Back Bay and Chinatown. It would have a student population of nearly 80,000, of which 8.7% are minority group students.

The primary aim of the intermediate education agencies would be to offer programs and services to aid local school systems in providing equal educational opportunity for all students in the service area coordinated by METCO Center. Services to the member LEAs could include: in-service training, special education programs, guidance (including occupational guidance), curriculum development, occupational education, cooperative purchasing, data processing, media libraries, teacher recruitment services, development of cultural and ethnic curriculum materials.

Programs would be developed in response to the needs of the member LEAs and would be determined by the inability of the local district to provide the same service on as economical, efficient, and effective basis by itself.

Pilot programs would be developed by the intermediate unit in response to the needs of the member LEAs. These would be field tested before being spun off for the constituent districts to support them internally.

The resources of the metropolitan area would be developed and used in cooperation between the intermediate agency and the cultural, scientific, governmental, cultural and business institutions. A museum or theatre company at the core and a camp for environmental and outdoor education at the perimeter might be examples of the use of the area's resources for educational programs and learning environments.

Contractual arrangements between the intermediate education agencies and the local districts should be considered one of the principal sources of funds since this would indicate program commitment. It would also assure the voluntary collaborative nature of the arrangements and programs. If an LEA did not want to participate in a particular program offered by the I.E.A., it would not contract for that program and would not pay for it. However, the I.E.A. should be able to receive funds and grants from State and Federal sources as well as the private sector, and should be eligible to bond for purposes of construction and renovation of facilities.

The Governor's Commission on School District Organization and Collaboration

The Governor's Commission on School District Organization and Collaboration was established by the Governor to study how Massachusetts could provide more effective and efficient educational service and more equal educational opportunities through both collaboration and improved school district organization. At the request of the Massachusetts Advisory Council on Education, the Governor appointed a 21 member commission to work from June 1972 to June 1974. The study funded eleven projects in its second year which relate to collaboration, consolidation and citizen involvement. Their final report, soon to be published, presents 22 recommendations to the State Board of Education for their action. Recommendation #20 concerns the future of MPP:

> RECOMMENDATION #20: THE BOARD OF EDUCATION SHOULD PROVIDE A STAFF UNIT IN THE BOSTON REGIONAL EDUCATION CENTER TO PLAN, ENCOURAGE, AND ADMINISTER IMPLEMENTATION OF AT LEAST TWO MODEL RECOMMENDATIONS FROM THE METROPOLITAN PLANNING PROJECT--A PATHWAYS MODEL FOR SECONDARY STUDENTS AND A PAIRWAYS MODEL FOR ELEMENTARY STUDENTS. THE GENERAL COURT AND THE GOVERNOR SHOULD ACT TO PROVIDE FUNDS FOR IMPLEMENTATION OF BOTH THE STAFF UNIT AND THE SUBSEQUENT MODELS. The staff unit could be an early implementation of the EDU concept or a temporary unit that would eventually be replaced by an EDU. In any event, its basic task would be to utilize the planning results from the Metropolitan Planning Project to promote collaboration among the districts and citizens in the Metropolitan area. In the Pathways model, secondary students from urban and suburban schools would meet together in carefully selected sites along a transportation path like the Green Line subway to share special learning and/or bilingual experiences. In the Pairways model, two suburban elementary schools and one urban elementary school would join to form a "neighborhood" within which learning experiences would be shared. These models provide a possibility for expanding cooperation between urban and suburban citizens in a way that would enrich the lives of all participating students. Results in the Boston area could be shared through regional education centers, citizen resource centers, and eventually a statewide information management system to serve as a stimulus to similar developments elsewhere. While we have not attempted to explain all the details of these models here, these details and associated recommendations are available in the final report of the Metropolitan Planning Project. It would be a tragedy and disservice to the citizens of Massachusetts if the potential defined by this project were ignored.

As a result of this recommendation, the State Board of Education and its Commissioner requested the Director of the Bureau of School District Reorganization and Collaboration to meet with MPP and other parties interested in metropolitan urban-suburban programs and to draft legislation which was presented to the State Board of Education and approved as a part of the Board's legislative package for submission to the Massachusetts General Court during the 1975 session.

MPP Governance Recommendations

It is the recommendation of MPP that voluntary collaboratives of school districts supported by state and local funds be established to carry out the metropolitan education program policy recommendations of the Ten Year Plan.

The voluntary collaborative form of organization for the elimination of ethnic and racial isolation has been examined by MPP. It has been tested through the fourteen DLE projects. The organization model has been analyzed by the Research team through a study of current educational and education related collaboratives and an analysis of present legislation about educational governance structures. Furthermore, the community participation staff met with the Urban-Suburban Steering Committee to critique the proposed organizational form. Finally, the Governing Board and

Advisory Committee have reviewed the recommendations. The MPP Proposal clearly states that although the formula plan of the ESAA will be tested for its feasibility, acceptance of the Federal grant by the applicant districts does not imply acceptance of such a plan. Part Three: OPTIONS assessed the simulation of the formula approach and documented its infeasibility.

The criteria which were utilized to evaluate the Formula Plan consisted of both fundamental premises and specific technical and educational standards which are summarized below:

1. that the chief criteria for evaluating any metropolitan plan will be that it holds promise of improving the quality of education for all the participating students;

2. that the elimination of racial and ethnic student isolation can best occur through innovative educational programming;

3. that collaborative school district groupings will operate so as to reduce or eliminate racial and ethnic student isolation; and

4. that governance of these programs be through a process of shared decision-making with all participants in the educational process.

Emanating from these fundamental premises are a series of specific measurable criteria which are both technical and educational in origin:

1. a reasonable time/distance ratio for student travel dependent upon age of student and length of program time;

2. an energy-efficient mode of travel, given energy resources in the region and the status of rapid transit;

3. relatively adjacent communities within the service area of each of the State Department of Education's Regional Education centers;

4. a match of urban and suburban communities which reflect mutual needs.

These same criteria were used to assess the Alternative Plan's governance recommendations..

The governance recommendations have been developed in two parts: the draft legislation AN ACT PROVIDING FOR THE ESTABLISHMENT OF VOLUNTARY METROPOLITAN EDUCATION PROGRAMS, and Collaborative Recommendations for potential groupings of school districts in the Boston metropolitan area.

The draft legislation establishing voluntary metropolitan education programs for urban-suburban school districts was developed by the State Department of Education, Bureau of School District Reorganization and Collaboration jointly with MPP and other groups interested in metropolitan education organizations for the purpose of eliminating minority group student isolation (see EXHIBIT X-1). The partners involved can include urban municipalities, non-urban municipalities, and regional school districts. Urban municipalities are defined either as a central city of a Standard Metropolitan Statistical Area or a city with a population over one hundred thousand according to the 1970 Federal Census. The governing structure consists of a Metropolitan Educational Program Board whose membership shall be broadly representative and include superintendents of schools, school administrators, teachers, students, parents, and such other persons as may be interested in serving. These Boards, of course, are similar in structure to the Boards recommended in Chapter X "Administrative Recommendations" for the metropolitan educational programs such as METROPATHWAYS and METROPAIRWAYS. The educational programs authorized in this bill shall be "innovative in nature and shall include programs for cultural enrichment, occupational awareness and competency and for children with special needs". The key element in this bill is its goal: "to promote the broadest interaction among the students and the staff members of the urban and non-urban municipalities and the regional school districts". Other aspects conform to the MPP Alternative Plan: the programs can be full day, part day, full year or part year and carried out in both school and on non-school sites. This legislation underscores MPP's funding recommendation which is for the State to primarily support metropolitan education programs.

The recommendations of potential collaborative groups of school districts are based upon the feasibility study of the metropolitan education program recommendations in Chapter VIII "The Alternative Plan". The feasibility study examined the transportation alternatives available to students in the MPP study area for them to participate in the programs. Transportation availability is one of the variables in participation, others include geographic proximity, scheduling options, program quality, and,of course, the underlying motivation to join programs where one can be with person of different backgrounds.

It has been established that an innovative program will attract school districts, community groups, cultural institutions and students from different racial and social backgrounds. In an evaluation of 78 communities in the SMSA, it was found that of the potential participant school districts in the metropolitan educational programs, utilizing criteria discussed earlier, 54 municipal districts can most easily participate in the METROPATHWAYS or METROPAIRWAYS program. They are:

EXHIBIT X-1

DRAFT LEGISLATION

The Commonwealth of Massachusetts

IN THE YEAR ONE THOUSAND NINE HUNDRED AND SEVENTY- FOUR

AN ACT PROVIDING FOR THE ESTABLISHMENT OF VOLUNTARY METROPOLITAN EDUCATIONAL PROGRAMS.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1.

Chapter seventy-one of the General Laws is hereby amended by adding after section eighty-six the following section:- Section 87. The board of education shall promote the development of voluntary metropolitan educational programs among urban municipalities, non-urban municipalities, and regional school districts. As used in this section, an urban municipality shall be defined as either the central city of a standard metropolitan statistical area as provided in the United States Bureau of Census or a city with a population over one hundred thousand according to the nineteen hundred seventy federal census.

NOTE. – Use ONE side of paper ONLY. DOUBLE SPACE. Insert additional leaves, if necessary.

Any voluntary metropolitan educational program authorized under this section shall be innovative in nature and shall include programs for cultural enrichment, for occupational awareness and competency, and for children with special needs. Such a program shall promote the broadest interaction among the students and the staff members of the urban and non-urban municipalities and the regional school districts; provided, however, that no less than forty per cent and no more than sixty per cent of the participating students and staff members may be from the urban municipalities. Such a program shall be scheduled for a whole or part of a school year and shall be carried out in a variety of environments, including school as well as non-school sites in both urban and non- urban municipalities and regional school districts.

Any school committee of an urban municipality may enter into an agreement with one or more school committees of non-urban municipalities and regional school districts to establish a voluntary metropolitan educational program, provided that such agreement has been authorized by the vote of each such school committee and approved by the commissioner of education. The agreement shall state the purposes of the program, the approximate number of students and staff members who are to participate in the program, the approximate costs of the program, the approximate amounts to be paid by each of the member municipalities and regional school districts, and any other matters deemed advisable. The approximate costs may include expenditures for the leasing of adequate facilities, but may not include expenditures for the construction of any buildings.

The agreement shall provide that a metropolitan educational program board, hereinafter referred to as the metropolitan board, be established. Each school committee, entering into the agreement shall appoint members to the metropolitan board and the agreement shall state the number of members to be appointed by each school committee. The entire membership of the board shall be broadly representative of the following groups: superintendents of schools, school administrators, teachers, students, parents, and such other persons as may be interested in serving on the metropolitan board. The metropolitan board shall have jurisdiction and exercise control over its programs. Each such metropolitan board shall appoint an executive officer and shall have authority to enter into contracts with the federal and state government, any city or town or regional district school committee, and with any non-profit organization for the performance of the duties required under this section.

The agreement shall designate one municipality or regional school district which is party thereto as the operating agent. Any funds received by such operating agent from other municipalities or regional school districts which are parties to such agreement and all grants or gifts from the federal government, state government, charitable foundations, private corporations, or any other source may be expended for the programs authorized under this section without appropriation. All such monies shall be deposited with and held as a separate account by its treasurer and payments from such account shall be made by said treasurer according to duly approved warrants provided by general or special law on order of the executive officer.

All bills and payrolls submitted for services rendered, or for equipment or supplies delivered, in connection with any such agreement shall be plainly marked to indicate that such services were rendered, or such equipment or supplies delivered under authority thereof.

The board of education shall, subject to appropriation, make monetary grants to the operating agents of any voluntary metropolitan educational programs, to meet in part the costs of such programs, in such amounts as said board may determine; provided, however, that transportation costs shall be paid for in full by the board of education. Any amounts paid to operating agents shall be used for the purposes of the voluntary metropolitan educational programs.

The department of education shall certify no later than August fifteenth of each year to the comptroller the amounts payable to the operating agent of each voluntary metropolitan educational program. Within thirty days of such certification, the state treasurer shall pay to the operating agents the amounts due in accordance with said certification.

Arlington
Bedford
Belmont
Boston
Braintree
Brookline
Burlington
Cambridge
Chelsea
Concord
Dedham
Dover
Everett
Framingham
Hingham
Holbrook
Lexington
Lincoln
Lynn
Lynnfield
Malden
Marblehead
Medford
Melrose
Milton
Nahant
Natick
Needham
Newton
North Reading
Peabody
Quincy
Randolph
Reading
Revere
Salem
Saugus
Sherborn
Somerville
Stoneham
Sudbury
Swampscott
Wakefield
Waltham
Watertown
Wayland
Wellesley
Weston
Westwood
Weymouth
Wilmington
Winchester
Winthrop
Woburn

There are twenty-four communities which would have difficulty participating in the metropolitan educational programs recommended in the Alternative Plan measured by the criteria listed above. Therefore they are not included in the first phase of the Ten Year Plan. Yet certain factors militate against these communities being ultimately excluded from metropolitan programming in a phased Ten Year Plan. Technical knowledge is constantly being expanded; moreover some of these communities have expressed interest in metropolitan education programs to eliminate ethnic and racial isolation through membership in METCO, through submission of Design of Learning Environments proposals, or through inquiries concerning METROPATHWAYS. Therefore MPP recommends a two phased collaborative grouping; the first phase to bdgin in 1974 to include those school districts currently technically within the areas available to METROPATHWAYS and METROPAIRWAYS. The second phase, to begin in 1979, would include those not currently suggested for involvement but whose interest or geographic position could lead to future collaboration. (see Table X-1 and Maps 1-5). Each recommended grouping may have subgroups of school districts or schools based on economics of scale geographic proximity and other factors. It is strongly recommended that every collaborative grouping include a part or all of the City of Boston. The eventual inclusion in the planning effort of all school districts in the study area in no way implies an acceptance of the formula plan or any agreement of its feasibility for equality integrated education in 1974. MPP has recommended voluntary collaboratives; only those communities with an interest in the programs will join. It must be remembered that voluntary collaboration is exactly that; if a school district wishes to join a METROPATHWAYS Module, for example, because of the program offering, the school system must determine for itself the feasibility of joining one module rather than another.

The METROPATHWAYS and METROPAIRWAYS program recommendations include a minimum of 20% minority group students participating in each specific program option, in order to meet the educational feasibility criteria. This standard is essential to the program's purpose. Any community can participate in a METRO ETHNIC HERITAGE RESOURCE CENTER since its model of development recommends replicable centers dispersed throughout the metropolitan area.

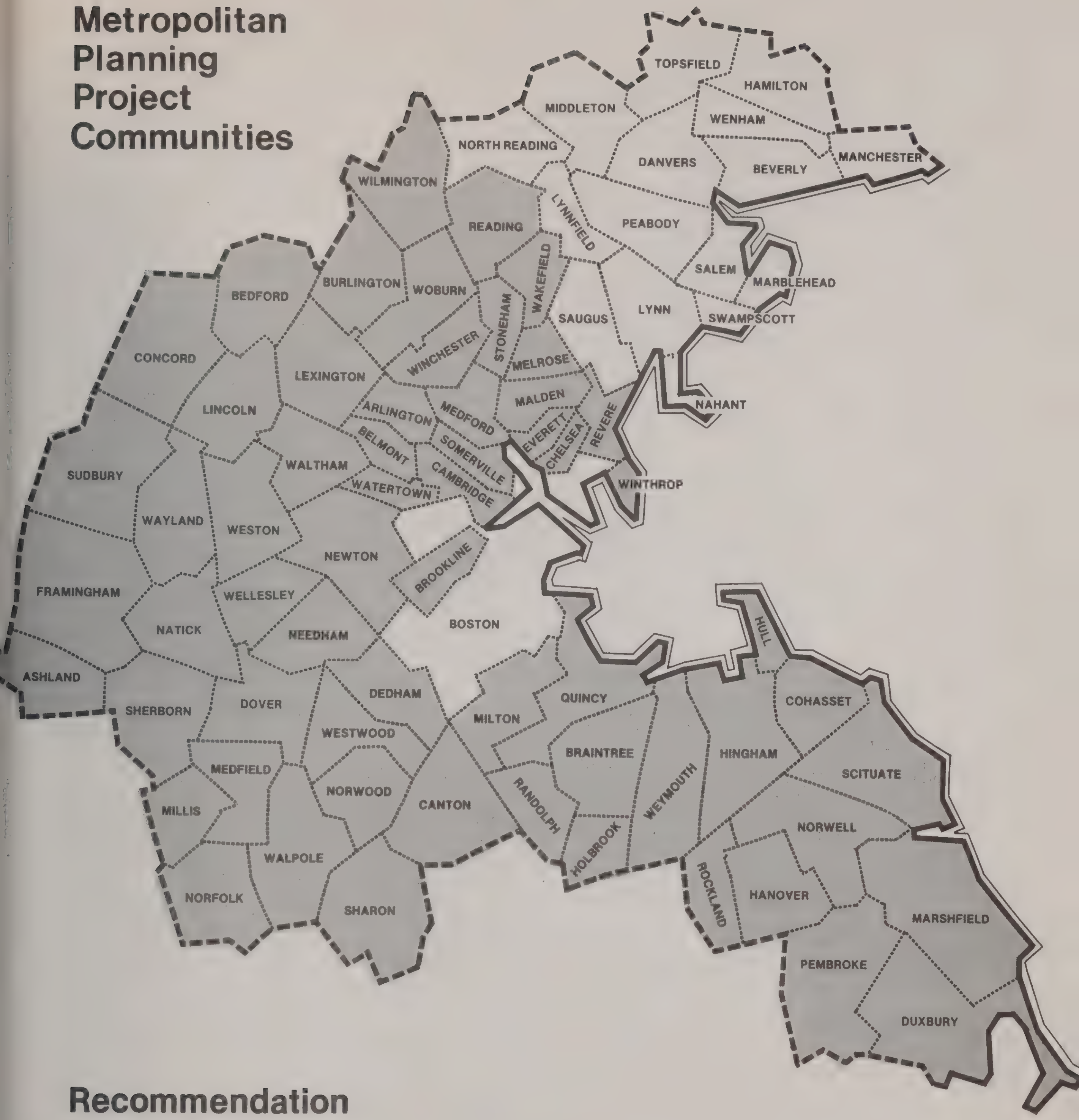
METROPOLITAN PLANNING PROJECT TABLE X-1

POTENTIAL GROUPINGS OF SCHOOL DISTRICTS FOR VOLUNTARY COLLABORATION
Leading to the Elimination of Racial and Ethnic Isolation Among School Age Children
in the Boston Metropolitan Area

Collaborative Recommendation #1	Collaborative Recommendation #2	Collaborative Recommendation #3	Collaborative Recommendation #4	Collaborative Recommendation #5
Beverly*	Arlington	Ashland*	Boston	Boston
Boston	Bedford	Belmont	Canton*	Braintree
Danvers*	Boston	Boston	Dedham	Cohasset*
Hamilton*	Burlington	Brookline	Medfield*	Duxbury*
Lynn	Chelsea	Cambridge	Millis*	Hanover*
Lynnfield	Concord	Dover	Milton	Hingham
Manchester*	Everett	Framingham	Norfolk*	Holbrook
Marblehead	Lexington	Lincoln	Norwood*	Hull*
Middleton*	Malden	Natick	Randolph	Marshfield*
Nahant	Medford	Needham	Sharon*	Norwell*
No. Reading	Melrose	Newton	Walpole*	Pembroke*
Peabody	Reading	Sherborn	Westwood	Quincy
Salem	Revere	Sudbury		Rockland*
Saugus	Somerville	Waltham		Scituate*
Swampscott	Stoneham	Watertown		Weymouth
Topsfield*	Wakefield	Wayland		
Wenham*	Wilmington	Wellesley		
	Winchester	Weston		
	Winthrop			
	Woburn			

Note: * School Districts involved in Phase Two collaboration.

Metropolitan Planning Project Communities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HINGHAM
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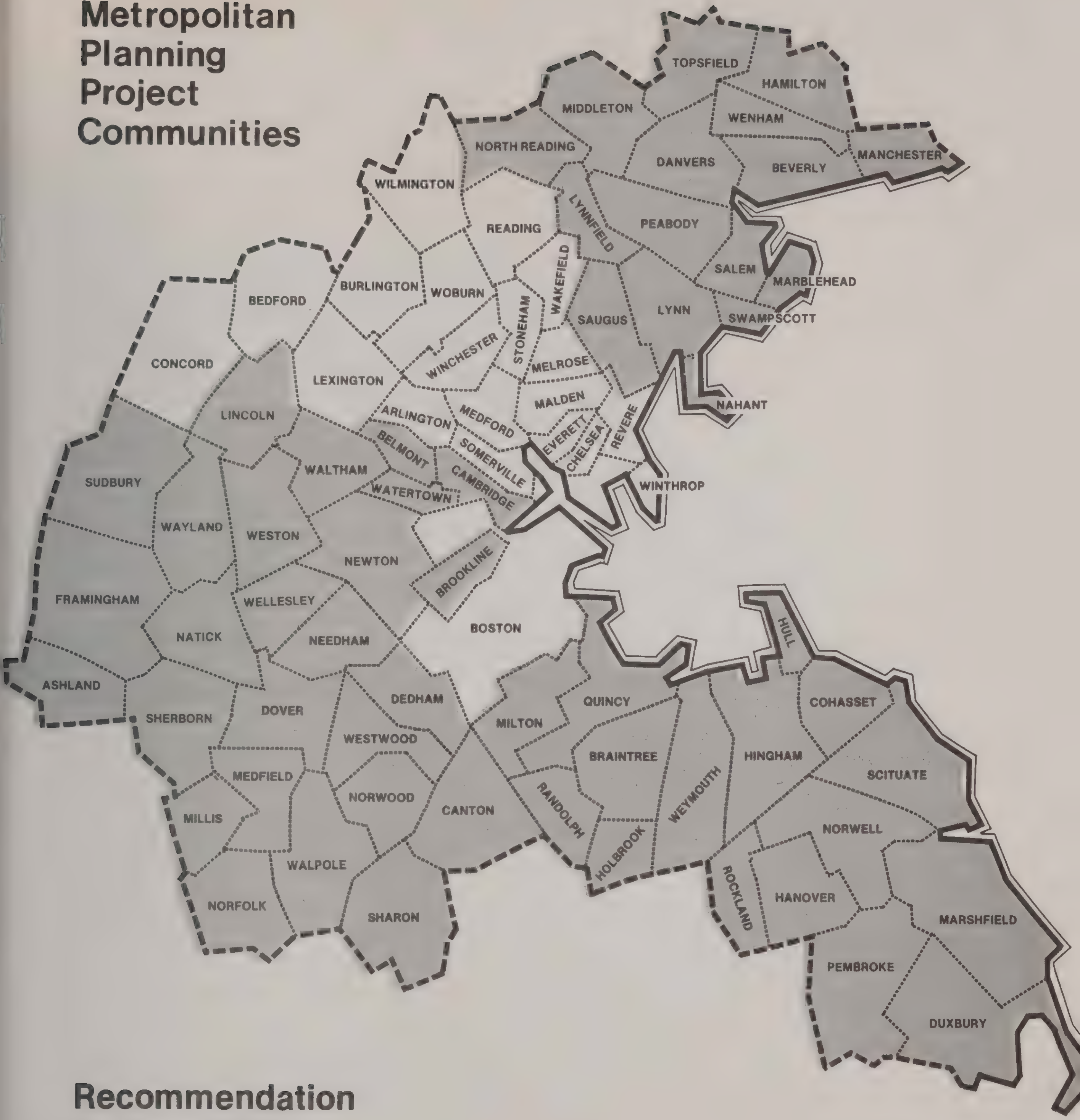
MEDFIELD
RANDOLPH
WEYMOUTH
MILLIS
NORWOOD
CANTON
NORWELL
HOLBROOK
WALPOLE
ROCKLAND
HANOVER
NORFOLK
SHARON
MARSHFIELD
PEMBROKE
DUXBURY

Recommendation for Potential School District Collaboration

NO. 1

☐ Recommended Collaborative

Metropolitan Planning Project Communities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HANOVER
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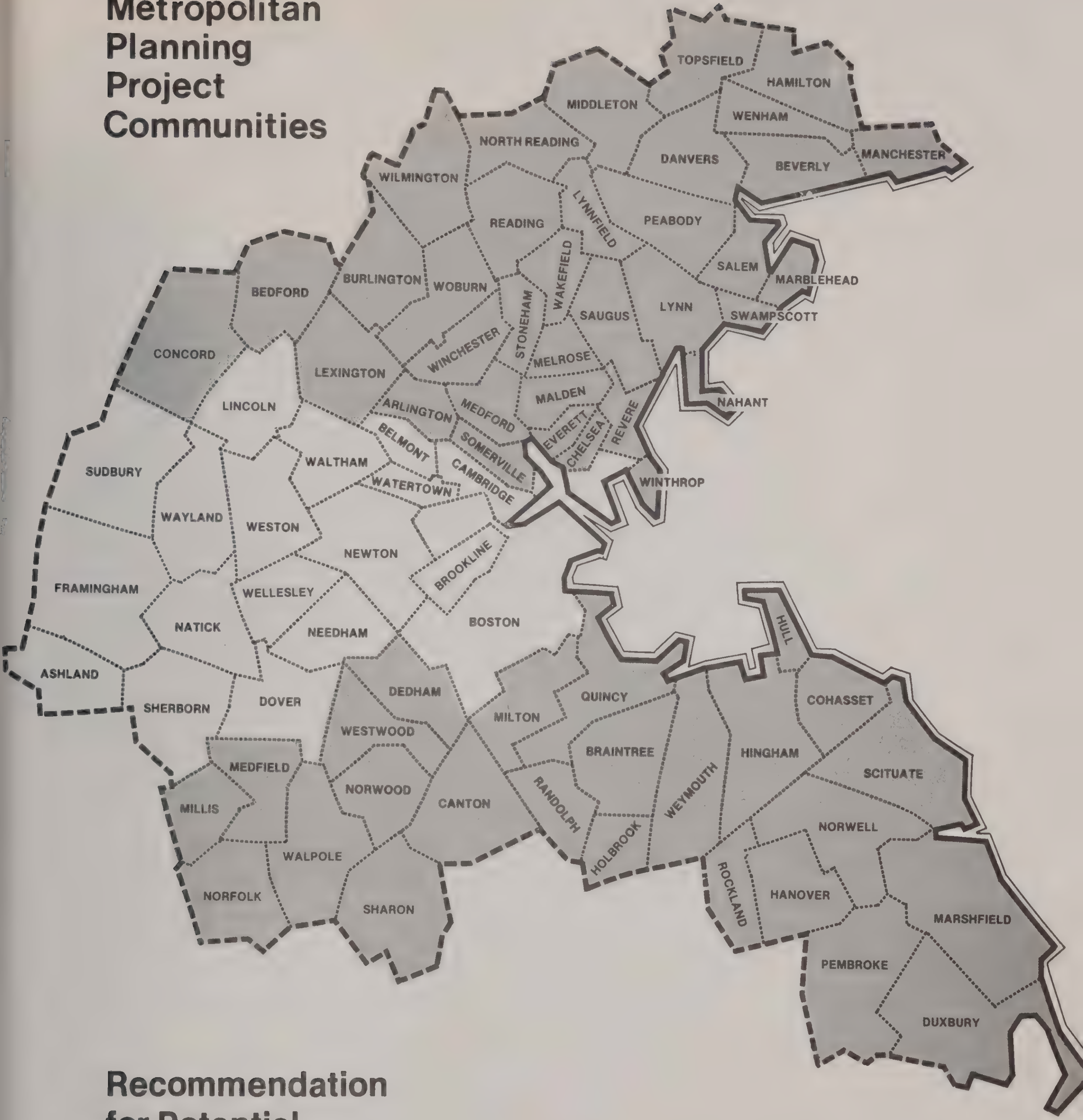
MARSHFIELD
PEMBROKE
DUXBURY

Recommendation for Potential School District Collaboration

NO. 2

☐ Recommended Collaborative

Metropolitan Planning Project Communities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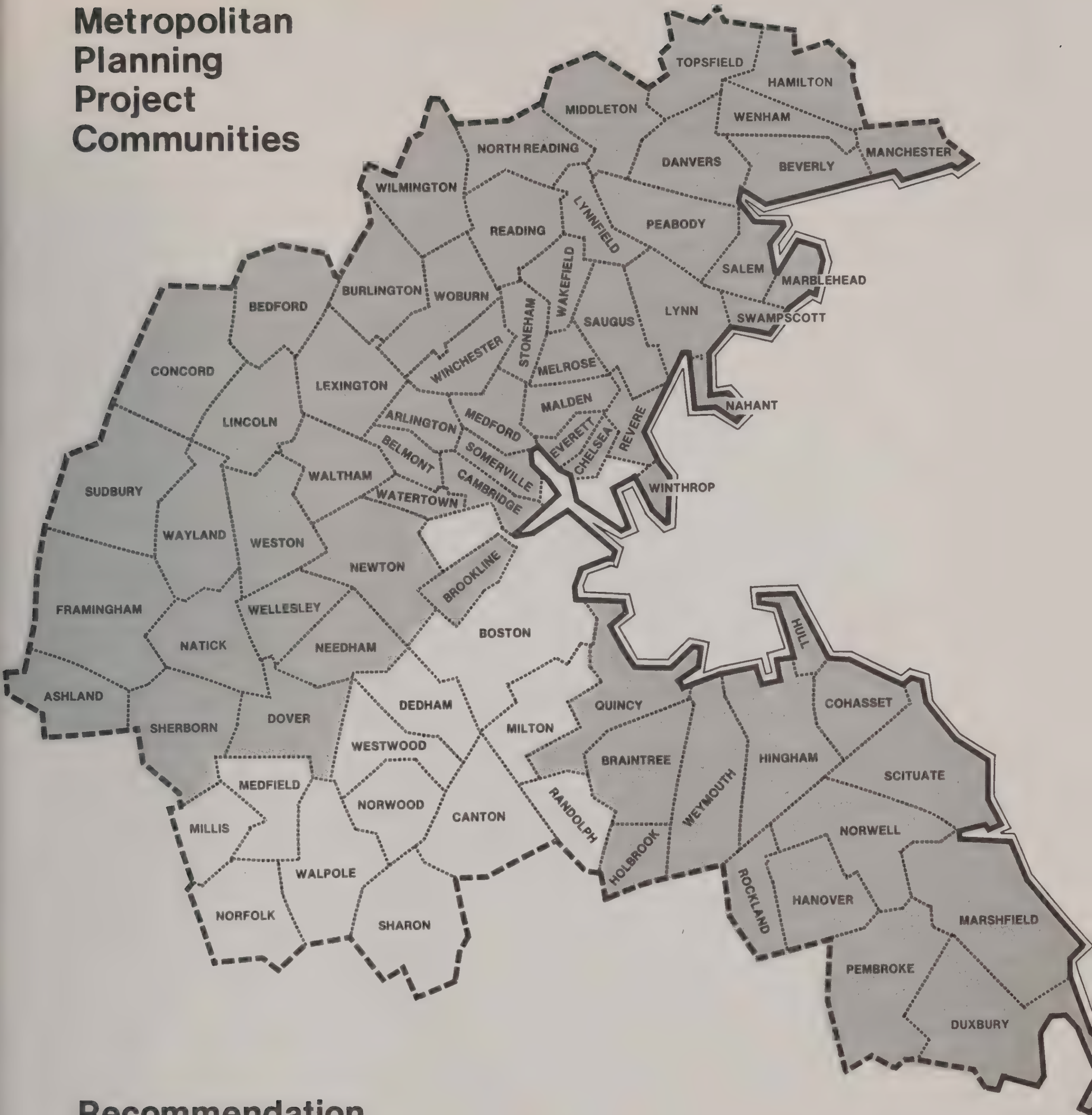
PEMBROKE
DUXBURY

Recommendation for Potential School District Collaboration

NO. 3

☐ Recommended Collaborative

Metropolitan Planning Project Communities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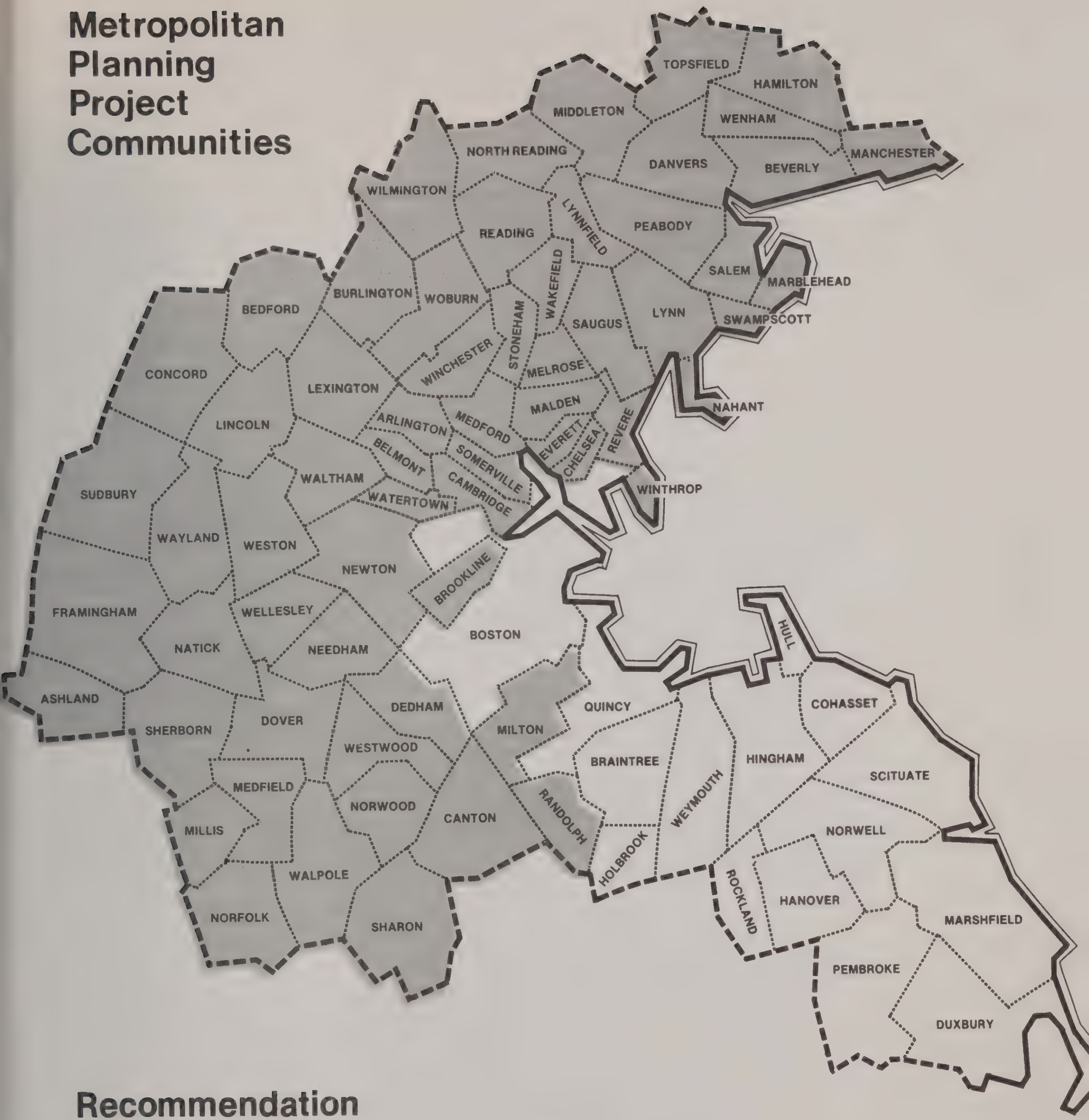
WALPOLE
ROCKLAND
HANOVER
NORFOLK
SHARON
MARSHFIELD
PEMBROKE
DUXBURY

Recommendation for Potential School District Collaboration

NO. 4

☐ Recommended Collaborative

Metropolitan Planning Project Communities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WALPOLE
HANOVER
MARSHFIELD
NORFOLK
SHARON
PEMBROKE
DUXBURY

Recommendation for Potential School District Collaboration

NO. 5

☐ Recommended Collaborative

The voluntary collaborative mechanism has been recommended as the way to eliminate racial and ethnic student isolation. If the voluntary approach is not effective in eliminating student isolation in the SMSA by July 1983, MPP suggests that the Legislature should adopt a statutory framework in order to have the metropolitan area school districts meet the mandate of the ESAA. In a phased Ten Year Plan, written in the decades of normative and technical information explosions, MPP responds to this challenge by continuing its open and iterative planning process. It is through this process that contingencies, changes, and constant review of the Plan and its ongoing implementation can take place with the communities involved.

ABSTRACT OF VOLUMES

Introduction

The Ten Year Plan consists of three published Volumes and an Addenda which are described below: they are available through the Metropolitan Planning Project's publisher, MASBO Cooperative Corporation, 53 Salisbury Street, Winchester, Massachusetts 01890.

The Plan, METRO WAYS TO UNDERSTANDING: A Plan for the Voluntary Elimination of Racial and Ethnic Isolation in the Schools of the Boston Metropolitan Area, is the beginning of a ten-year process. It contains policy recommendations and is also a participatory process to develop further programs. This document is intended to continue an ever broadening dialogue to generate voluntary programs for school districts and community groups to accomplish the mandate: to eliminate racial and ethnic isolation among students in the schools of the Boston metropolitan area. The written document consists of three Volume:

VOLUME I: METRO WAYS TO UNDERSTANDING

This volume tests the feasibility of the ESAA Formula Plan and the Alternative Plan designed to meet the mandate. The Alternative Plan describes the metropolitan education program recommendations: METROPATHWAYS, METROPAIRWAYS, and METRO ETHNIC HERITAGE RESOURCE CENTERS; the administrative recommendations: the METROCENTER FOR COMMUNICATIONS, COUNSELLING, AND RESOURCE DEVELOPMENT ; and the governance recommendations: voluntary collaboratives of school districts.

VOLUME II: RESOURCES FOR IMPLEMENTATION

Volume II provides the technical foundations for the implementation of the metropolitan education programs described in Volume I.

PART ONE: PROGRAM IMPLEMENTATION: 1974-75 to 1982-83

This document presents the data for implementation of these programs in a schedule by year from 1974-75 to 1982-83 for students in the school districts in the metropolitan area, as mandated by the ESAA. The schedule displays the number of students to be involved in any one year in any of the recommended education programs and further shows suggested school district groupings for METROPATHWAYS, and individual school groupings for METROPAIRWAYS. It shows models for the development of the METRO ETHNIC HERITAGE RESOURCE CENTERS. It also presents the "Community Analyses", an assessment of groupings of School Districts which were developed through an interpretation of research data about the 78 districts of the Boston Standard Metropolitan Statistical Area (SMSA).

PART TWO: TECHNICAL RESOURCES

This document consists of 48 comparative tables of the SMSA communities which examine more than 100 variables utilized in comprehensive education planning. These educational and education related characteristics include such significant variables for policy and program planning as historic and projected student enrollments by race; professional staff by race; school district revenues and expenditures; educational collaborative membership; population distribution by race; median income; home value; land use patterns; and travel times between municipalities.

PART THREE: PROGRAMMATIC RESOURCES

This document contains excerpts from the final reports of the Design of Learning Environments projects, and summaries of the other educational programs developed under the auspices of MPP. They are integrated under the three major programmatic recommendations: METROPATHWAY, METROPAIRWAY and METRO ETHNIC HERITAGE RESOURCE CENTER. It also contains the Metropolitan Planning Project Directory of Applicants for Design of Learning Environments sub-contracts. This Volume will be available in June of 1975.

VOLUME III: COMMUNITY PROFILES

The purpose of these profiles is to serve as the data base for the Ten Year Plan and to develop information for the implementation of educational programs through the analysis of the interaction between the education system and related urban systems. A profile was developed for the 78 Boston SMSA municipal school districts and the five regional school districts whose entire student body comes from communities in the study area. Individual profiles for each school in the District are included.

VOLUME IV: SUPPORT DOCUMENTATION

This document contains the final reports of all sub-contracts; the master mailing list; the RFPs; the decision matricies; the monitoring reports; the 78 DLE Proposals; curriculum survey; all newsletters, press releases, newsclippings; and the external evaluation reports. It will not be published but individual elements may be obtained.